HOSPITAL ABSTRACTS

A MONTHLY SURVEY OF WORLD LITERATURE

PREPARED BY THE DEPARTMENT OF HEALTH

AND SOCIAL SECURITY

VOLUME 17, NO. 6, ABSTRACTS 767-919. JUNE 1977

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HOSPITAL ABSTRACTS

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HOSPITALS IN GREAT BRITAIN

See also Abstract Nos. 778, 917

767. HANDLER, C. E., editor. **Guy's Hospital: 250 years.** London, Guy's Hospital Gazette, 1976, vi, 232pp. £2.00

This special issue of *Guy's Hospital Gazette* to mark the 250th anniversary of the hospital contains some 60 papers providing a record of the anniversary celebrations, and reports on some of the many important changes and developments which have taken place at Guy's during recent years.

HOSPITALS IN OTHER COUNTRIES

See also Abstract Nos. 775-777

768. BRYANT, J. H. and others. **Community hospitals and primary care.** Cambridge, Mass., Ballinger, 1976, xv, 399pp. £6.90

As the number of primary care physicians in the United States has declined, many people have turned to hospital casualty or out-patient departments as a source of general medical services. In some communities these facilities now serve as major providers of primary and ambulatory care. This report on the current and potential roles of hospitals in improving primary care arrangements examines three major forces at work: (i) the search for more effective ways to provide primary care; (ii) the strong trend of physicians toward grouping for medical practice; and (iii) the changes at work in the roles of hospitals. It explores how the interplay of these three forces can result in changes in the way hospitals handle primary care. Particular attention is given to the potential of group practice arrangements, developed in conjunction with hospitals, for dealing with the primary care problem.

769. BÖLKE, G. Krankenhausprüfungen in Hessen. **[Hospital investigation in Hesse.]** *Krankenhaus*, Stuttgart, 1977, Feb., vol. 69, no. 2, pp. 45-58.

The Hessen Minister for Social Affairs decided to carry out a detailed survey of all hospitals in the *Land* to investigate expenditure on staffing and materials in accordance with recent legislation. This survey is being carried out over a period of three years and is in the hands of independent firms of consultants. This paper sets out in full detail the scope of the surveys and the criteria and techniques which will be used. There is some doubt as to whether the consultants have the knowledge to appreciate the special conditions obtaining in hospitals. The author, who is the general secretary of the Hessen Hospital Association, refrains from commenting on the principles of the survey.

770. MÜLLER, H. Ist der wirtschaftliche Tod des freigemeinnützigen Krankenhauses vorprogrammiert? **[Has the economic death of the independent hospitals been pre-programmed?]** *Krankenhaus*, Stuttgart, 1977, Feb., vol. 69, no. 2, pp. 40-44.

This is a criticism of recent legislation on hospital financing in Western Germany from the viewpoint of the independent hospitals (i.e., those not owned by local authorities or the State). These hospitals own 36 per cent of beds throughout the country and 60 per cent of beds in North Rhine/Westphalia. While local authorities are able to make grants to their hospitals to ease financial crises the independent hospitals have no such resort and their economic survival is threatened. If the independent hospitals—and even in the long run all other hospitals—are to survive, the following changes are necessary: a revision of legal rights with regard to the fixing of the 'per patient day' grants; hospitals must be able to retain and make use of any surpluses; and hospitals should have more freedom in decision making and in management with less direction from the State.

771. POPKO, K. M. **Regulatory controls: implications for the community hospital.** Lexington, Mass., D.C. Heath, 1976, xviii, 189pp. £9.70

This book describes the legal regulations that have been introduced in the United States which affect voluntary community hospitals and the impact of these regulatory controls on hospital administration and development. In Part I there are separate chapters which show the growth of regulatory controls 1945-1974, give a summary of the scope of these controls and describe the interface between these controls and decision making processes in the hospitals. In Part II there are two chapters giving case studies of a rural and an urban hospital, followed by a chapter giving the views of those in the regulatory agencies. In Part III there are chapters analysing the data, discussing the findings, and describing alternative systems. There is a list of references pp. 163-179.

PLANNING, DESIGN AND CONSTRUCTION

DETERMINING SIZE OF HOSPITAL AND BED NEEDS

772. WESTERBERG, A. Vad vi lärde av sjukvårdensplaneringen . . . **[What we learnt from health care planning . . .]** *Landstingens Tidskrift*, Stockholm, 1977, Feb., vol. 64, no. 2, pp. 42-43.

In 1972 the Department of Social Services' hospitals department recommended the preparation of county health plans for the period 1975-1985. The First Secretary of the County of Malmö health committee reviews the results of such planning in the county. The first step was to forecast population trends from 1970 onwards, allowing the requirement for hospital beds to be assessed. 100 new medical beds are required, and new buildings are needed for surgery. Responsibility for aged senile dementia patients is to be transferred from the psychiatric department to the somatic long-stay wards, and this, plus increased out-patient treatment, will reduce the need for psychiatric care. Waiting lists for long-term care are lengthening: an increase in beds from 950 in 1972

to 2,425 in 1985 is required, but only 1,800 will be provided. This will permit a certain lessening of pressure on the psychiatric wards. The county medical service is to be extended to a capacity of four medical consultations per inhabitant a year: great efforts are to be made to direct out-patient flow away from Malmö General Hospital towards the decentralised health centres and district medical centres. Dental services are already the best in Sweden. The investigation revealed serious deficiencies at clinic level, hospital level, central administration and direction level. Spri-konsult AB hospital management consultants are now reviewing the entire administration of the system.

CONSTRUCTION METHODS AND BUILDING MATERIALS

773. SALVADE, M. L'impiego della prefabbricazione nelle construzioni ospedaliere. **[The use of prefabrication in hospital construction.]** *Ospedali d'Italia*, Roma, 1977, Jan., no. 1, pp. 74-87.

The reform of the hospital system in Italy calls for more flexible, faster, and more efficient construction. The practical advantages of prefabrication and industrialized building techniques are described. The greatest benefits can be obtained if there is a well-planned and administered building programme, good design and working methods, and the recognition that, to make capital investment in industrialized systems worth their while, companies must have some guarantee that there will be a continued demand for their products. The use by the National Health Service in Great Britain of industrialized methods is described, with illustrations of the Best Buy, Oxford, Mullion and Intergrid systems.

HOSPITAL DESIGN

See also Abstract No. 841

774. KÄLL, B. 'Ledstjärnor vid sjukhusplanering'. Satsa på arbetsmiljön—vinn bättre sjukvård! **[Lodestars in hospital planning: better hospital care as a result of aiming for an improved working environment.]** *Landstingens Tidskrift*, Stockholm, 1977, Feb., vol. 64, no. 2, pp. 38-41.

The most important guiding principle in the planning and construction of a new hospital must be the welfare of the patient. The efficiency and humanity of patient care will be improved if an optimal working environment is provided for the staff. The modern hospital consists of a large number of decentralised working units able to function comparatively independently within the overall framework, reducing the need for cumbersome and detailed interdepartmental co-ordination. It is the task of management to lay down the guidelines of operation and to support individual units in the solution of their problems. To operate efficiently, a unit must be able to work stably and securely. Factors affecting stability include the sensitivity of the department to disturbance (mechanical failure, staff absence, etc.) and the complexity and comprehensibility of its layout and working situation. Service and maintenance resources must be sited in close contact with the main technology-consuming facilities. Staff working routines must be structured to allow groups responsible for wide areas of work to function comparatively independently of other groups. Personnel must be provided with attractive, challenging and responsible tasks, to be carried out in a pleasing,

brightly-coloured, well-lit environment, in which staff off-duty rooms are sited close to the actual work rooms, to increase staff sense of identity with their place of work.

DESIGN OF INDIVIDUAL GENERAL HOSPITALS

See also Abstract No. 788

775. **Houlton Regional Hospital.** *Progressive Architecture*, Cleveland, 1977, Feb., no. 2, pp. 54-57.

The new recently opened Houlton Regional Hospital, Aroostook County, Maine, is a hard-edged rambling structure with few openings. The window openings have been co-ordinated with the interior design to give light, views and fresh air through an exterior wall system designed for minimum exposure. Transparent and translucent materials are used to dissolve confined or dark spaces and to bring a sense of spaciousness and illumination. The internal structure of the hospital is discussed. The patient units consist of 36 beds in two 18-bed sub-units that share a nurses' station and support services. Each sub-unit forms the leg of an L. Each wing at Houlton has an unobstructed view as well as a place where sub-units meet to attach additional patient wings or specialized units. The plan accommodates itself to flexibility in nursing patterns and patient groupings.

776. **Joslin Foundation Clinic.** *Progressive Architecture*, Cleveland, 1977, Feb., no. 2, pp. 50-53.

Joslin Diabetes Foundation Clinic, Boston, provides facilities for the care and education of diabetic patients, including out-patients, in-patients and research/laboratory areas. The design of the clinic is outlined. The building is on four floors, and windows on the exposed south and west sides are set deep into the wall. The interior decoration and structural system are discussed. The Clinic successfully blends with the old buildings in the area. Plans of the Clinic are included.

777. BALLARD, M. **Using the breeze to keep down costs on an earthquake island.** *Health and Social Service Journal*, London, 1977, March 18, vol. 87, no. 4533, pp. 482-483.

A feasibility study and initial design for a hospital in Antigua, West Indies, was carried out to determine the best solution to the medical problems of the country. Antigua's present hospital has 212 beds and is sited outside the capital directly under the flight path of aircraft using the Islands International Airport. The design and structural condition of the present building are discussed. The new building has been designed to provide a modern general hospital and form a medical centre to create a natural administrative and professional base for those working both in the districts and in the hospital. The capital costs are outlined. The hospital takes advantage of the natural elements; it is oriented to take full advantage of all air movement and breezes, and consequently air conditioning is restricted to those departments using sophisticated medical facilities. A split level site prevents undue shielding from the breezes of one block by another. The plan of the hospital reflects the progression from intensive care to the acute wards and finally to the pre-convalescent wards. The separation of the building fulfills the structural design requirements of an earthquake zone.

778. **Wellington Hospital.** *Architects' Journal*, London, 1977, Feb. 9, vol. 165, no. 6, pp. 259-268.

The design and operation of the recently completed Wellington Hospital, London, (see Hospital Abstracts, Vol. 14, Abstract 1685) is discussed. Design constraints, structure fabric and internal decorations are outlined together with the services provided. Comparisons are drawn between the facilities available in private and in public hospitals such as this hospital. A number of plans and photographs of the hospital are included.

779. OERTLEY, R. and HAMMER, T. S. **Saudi clinic design benefits patient flow, staff efficiency.** *Modern Healthcare*, Chicago, 1977, Feb., vol. 7, no. 2, pp. 46-48.

An out-patient clinic for the Arabian American Oil Co. in Saudi Arabia has been designed to achieve efficient patient-flow and reduced staffing requirements, and to provide suitable accommodation for the company's medical screening technique, which uses nurses as health assistants. The entrance leads directly to the screening service, which has been sited at the hub of the facility. Patients' records are also kept in this hub. The various services, each with its own secondary waiting room, are arranged in clusters around the screening area, opening off a 12-feet wide, naturally-lit corridor that rings the section. Patient flow is counter clockwise from the entrance waiting room. Facilities include laboratory, X-ray, well-planned emergency room and an integrated signposting system. A plan of the clinic is included.

DESIGN OF SPECIAL DEPARTMENTS

780. SJUKVÅRDENS OCH SOCIALVÅRDENS PLANERINGS- OCH RATIONALISERINGS-INSTITUT. Sterilcentraler: an exempelsamling. **[Central sterile supply departments: examples.]** (Spri rapport 15/76) Stockholm, Spri, 1976, 32pp.

This report presents plans, all to the same scale, of 11 Swedish central sterile supply departments (CSSD's), together with brief factual details of each. The report is part of a study to establish a functional programme for sterilization activities and a design basis for CSSDs.

DESIGN OF SPECIAL HOSPITALS OR UNITS

See also Abstract No. 784

781. TRASKA, M. R. **St. Joseph's builds oncology center underground; cuts construction costs.** *Modern Healthcare*, Chicago, 1976, Dec., vol. 6, no. 6, pp. 42-43.

St. Joseph's Hospital, Milwaukee, Wisc., established a regional cancer treatment centre with the latest medical technology and the ability to handle a large case load, to receive out-patients from all over Wisconsin. The design of the centre is discussed. Underground floors are staggered to compensate in construction for the high amounts of radiation generated in the treatment rooms. The advantages of the construction are outlined. All patient consultation and planning areas are on the upper level, and the treatment, dressing rooms and laboratories are on the lower level. The cost of the equipment is given. The centre has treated an average of 800 patients a year since it

opened in August 1975; the staff consists of four radiation oncologists, four medical oncologists, two nurses and nurse assistants, and non-medical staff. The centre also operates a regional tumour registry.

782. INGHAM, J. **The design of security units: architectural considerations.** *Hospital Engineering*, London, 1976, Dec., vol. 30, pp. 15-19.

The design implications of the problem of providing secure units are discussed under the headings: understanding the problem; the site; security—what is required, and how is it to be achieved; and planning and design. Any building is only as good as its brief and successful designs have to be founded on a complete and proper understanding of the problem. Siting problems are outlined, together with the selection criteria. The total design of the unit should have careful regard for reasonable security throughout in layout and detailed design. Aspects of general design are outlined and the two fundamental sub-divisions in terms of security are discussed the more secure assessment unit, and the rest of the unit. The whole unit should be arranged not as a single building within a secure fence, but as a small community grouping with separate or linked blocks, with different buildings for different activities, providing as near normal living and working conditions as possible.

OTHER ASPECTS: EVALUATION OF BUILDINGS

See Abstract No. 778

ENGINEERING SERVICES

INSTALLATIONS IN GENERAL

783. BERTOLINI, G. F. Gli impianti tecnologici generali in un ospedale. **[The general technical installations in a hospital.]** *Ospedali d'Italia*, Roma, 1977, Jan., no. 1, pp. 88-130.

A general review is presented, with 22 illustrations, of different modern types of heating, air-conditioning, cold stores, electricity supply and circuits (particularly emergency supplies), lighting, call systems and transport (lifts and mechanized and pneumatic systems).

784. WILLIAMS, A. **The design of security units: engineering considerations.** *Hospital Engineering*, London, 1976, Dec., vol. 30, pp. 6-14.

Trent Regional Health Authority is proposing to build two secure units, the first in Leicester and the second in Nottinghamshire. The factors the engineer must consider when deciding on the degree of security are discussed, together with the general approach. Previous experience in the region had been limited to the provision of special rooms insome psychiatric units and simple security devices; consequently the expertise of those who have had the responsibility for the management of similar secure accommodation was drawn upon. The safety of the patients and the safety of the nurse is considered.

The engineering solutions to the problems are discussed, including: maintenance, distribution of services, heating, ventilation, domestic hot water supply, electrical services, and alarm systems. The engineering solution should be directly related to the management pattern and nursing philosophy of the unit. Over sophistication of security systems should be avoided. The higher the degree of sophistication, the higher the costs.

ELECTRICAL INSTALLATIONS AND EQUIPMENT

785. PLATTS, J. R. **Why an electric hospital?** *Heating and Ventilating Engineer*, London, 1977, Feb., vol. 51, no. 595, pp. 9-11.

Britain's first all electric hospital, a 140-bed project is to be built at Peterborough for the East Anglian Regional Health Authority. The advantages of such a system were published in the Ferguson Report. It is thought that not only would one be able to save on the running costs of a hospital but also on capital costs and installations as a whole. Other such hospitals have been built in Belgium, the United States, Canada and France, and these are briefly described.

COMMUNICATION SYSTEMS

786. BASHSHUR, R. L. and ARMSTRONG, P. A. **Telemedicine: a new mode for the delivery of health care.** *Inquiry*, Chicago, Ill., 1976, Sept., vol. 13, no. 3, pp. 233-243.

The two requisites of telemedicine are: (i) a heavy reliance on telecommunication technology; and (ii) the development of an organizational structure that is capable of using this technology efficiently. The development of telemedicine can be separated into three stages: (i) 1964 to 1969 was characterized by testing the feasibility of two-way transmission of diagnostic information and clinical encounters via microwave links and video equipment; (ii) 1969 to 1973 was characterized by a trend towards the exchange of knowledge and experience among the participants and government support and sponsorship of research; and (iii) the third stage is characterized by the idea of telemedicine as an innovative form of medical care delivery. The history of the delivery of medical services via telecommunication links is discussed and the advantages of the system are outlined. The future of telemedicine will be shaped by economic viability which will depend upon two factors: (i) the ability of telemedicine to provide unique benefits that cannot be provided by any other methods of delivery; and (ii) the relative effectiveness of telemedicine in providing the same benefits as other methods of delivery but at a reduced cost, or in providing the benefits at the same cost as other methods but at a higher level of quality.

TRANSPORT IN GENERAL

787. MOORE, R. A. J. **Hospital electric vehicles.** *Hospital Engineering*, London, 1976, Dec., vol. 30, pp. 22-25.

The advantages of electric vehicles are consistent with the need to provide essential hospital services with the minimum disturbance to the hospital environment. The

advantages of electric vehicles are considered from the aspects of: long-term reliability, cost-effectiveness and vehicle specification. A vehicle has been developed by Crompton Electricars which can perform duties in hospital grounds at a normally accepted controlled speed (12 mph) and also be run at a higher speed, minimizing journey time and allowing the vehicle to be run at speeds more in line with road traffic. The vehicle, battery and charger form a simple and efficient transport machine, reliable through its simplicity. The maintenance necessary for the vehicle is outlined. The electric vehicle is essentially a long-term cost saving investment which through its longer life and greater reliability releases resources for other uses.

788. WIEKART, K. Sint Franciscus Gasthuis te Rotterdam: schoolvoorbeeld van modern intern transport. **[Saint Francis Hospital, Rotterdam: an example of modern internal transport.]** *Instelling-Management*, Amsterdam, 1977, Jan., vol. 26, no. 1, pp. 7-15.

This 640-bed hospital (architects: Kraaivanger B. V. and Hendriks, Campman and Tennekes, Rotterdam) has automated each category of transport by the most up to date method. For goods transport, which includes meals, bedding, medicines, instruments, etc., there is on the second floor a railway 'complex' from where container trolleys, with their own codes, are electronically guided via covered tunnels and lifts to stations in the various departments; containers are automatically cleaned after use. Document transport is by pneumatic tube system and includes a small transport station between reception and polyclinic administration. Communications include radio for a staff-call system, direct telephone connections from each bed to a central exchange, intercom installation, central clock control, telephone, radio and television. The transport system, built into the design of the hospital, is quiet, fast, reliable and labour-saving. Whether the savings in labour justify the extra space and maintenance costs has still to be assessed. The paper includes plans of ground floor, first floor, fourth to twelfth floors and kitchen, with enumeration of layout and equipment, details of installations and 13 photographs.

HEATING

789. GENT, D. I. **Energy crunch hits hospitals.** *Hospital Financial Management*, Chicago, 1977, Jan., vol. 31, no. 1, pp. 22-27.

A study of the use of energy at Welborn Baptist Hospital, Evansville, Ind., revealed that it cost $3.00 per patient day for natural gas and electricity. The need to reduce natural gas consumption by 60 per cent resulted in the consideration of five plans: (i) reduce gas use by 60 per cent and eight per cent during heating and cooling seasons by using fuel oil; (ii) reduce gas use by 60 per cent and eight per cent during heating and cooling seasons by using electricity (electric boiler); (iii) use fuel oil 100 per cent for steam generation; (iv) use electricity 100 per cent for steam generation; and (v) use coal 100 per cent for steam generation. The operating cost factors were analysed and plan (i) adopted. The essentials in undertaking an energy management scheme in a hospital are discussed and possible future developments considered in the light of federal action.

VENTILATION AND AIR-CONDITIONING

790. GRÜN, L. and PITZ, N. Automatisch desinfizierbarer Luftkühler für Klimaanlagen in Krankenhäusern. **[Automatic disinfecting air cooler for hospital air-conditioning plant.]** *Heizung, Lüftung, Haustechnik*, Düsseldorf, 1976, Sept., vol. 27, no. 9, pp. 314-316.

Because of condensation and the secondary growth of bacteria surface air-coolers are, from the point of view of hygiene, a weak point in air-conditioning systems. This paper describes an effective method of disinfecting the air-cooler of a new type of air-conditioning. By means of built-in heating elements the cooler can be heated fully-automatically to a temperature of 130°C. Experiments have shown that if this temperature is maintained for 30 minutes all bacteria are killed. Disinfection can take place at night while the air-conditioning is not in use and can be timed to take place automatically at fixed intervals. The system need be out of action for no longer than an hour and as the procedure is fully automatic no extra labour is involved.

EQUIPMENT, FITTINGS, FURNITURE

MEDICAL EQUIPMENT

See Abstract Nos. 872, 892

STAFF GENERALLY

STAFF COMPLEMENTS

See Abstract No. 802

CONDITIONS OF SERVICE

See also Abstract No. 799

791. ROMERO, D. M. **Converting to a 'paid time off' benefit program.** *Hospital Progress*, St. Louis, 1976, Dec., vol. 57, no. 12, pp. 76-79.

Our Lady of Lourdes Hospital, Lafayette, La., developed a new employee benefit scheme. The deficiencies in the traditional sick leave benefit scheme rewarded staff with poor attendance records and penalized those with excellent records. The revised scheme allows staff to choose how they want to use their paid time off benefits which has resulted in better co-operation between management and staff. The provisions of the new scheme are analysed and the advantages discussed. The hospital now deals with only one computerized scheme and hours are accumulated per pay period.

STAFF MANAGEMENT

See Abstract No. 902

STAFF RELATIONS

792. LINDSTEDT-PILZ, I. Frågor och svar om MBL. **[Questions and answers on the Joint Consultation Act.]** *Vårdfacket*, Stockholm, 1977, Feb. 24, vol. 1, no. 4, pp. 18-21.

Under Swedish law, the direction of employees' activities is subject to joint consultation between staff and management. The legal consultant to the Swedish Health Service Established Civil Servants' Union reviews some of the queries she has had in this connection. On a surgical ward, the doctors retain medical responsibility for treatment, but there is a wide scope for consultation in the administrative field. If it is necessary for a hospital to move a nurse from one ward to replace a nurse on another because of absence, the change in the nurse's conditions of employment should be negotiated with the union. The role of decision-maker and manager is being abandoned in favour of group decisions arrived at and carried out jointly by qualified teams. The employer is bound by law to set up and maintain the machinery for decision-making consultations. The union is not responsible for the decisions arrived at in consultation between employer and staff. Staff are responsible for evolving flexible and non-time-consuming negotiating machinery, involving the minimum loss of production (for which there is no compensation for loss of earnings). The unions are now empowered by law to negotiate with the State on matters of employment, work leadership, finance, etc.

793. DOONA, M. E. **A nursing unit as a political system.** *Journal of Nursing Administration*, Wakefield, Mass., 1977, vol. 7, no. 1, pp. 28-32.

Staff dissatisfaction in a 123-bed medical geriatric unit in a large state psychiatric hospital was analysed by using Easton's political systems model. In accordance with the model, means for increasing staff participation in decision-making were implemented through the establishment of committees that heard staff demands. Initially, five meetings were scheduled weekly to permit all staff to present their ideas; minutes of the meetings were distributed to all staff. In sum, the issues amounted to one overall problem of communication. While the first few weeks of meetings were largely ventilation sessions, the last few were problem-solving ones. It was decided to create five committees to investigate problem areas: laundry, catering, the psychiatric units, nursing peers and supervisors. Membership of the committees was voluntary, but 48 per cent of the nursing staff soon joined one or more committees. The committees initiated a deliberate process of change by channeling demands into the system, providing the means by which issues could be discussed and resolved and directing the progress of the issues through the system.

STAFF TRAINING

See Abstract Nos. 796, 797, 803, 873, 893

STAFF WELFARE

See also Abstract Nos. 774, 849

794. HARRINGTON, J. M. and SHANNON, H. S. **Survey of safety and health care in British medical laboratories.** *British Medical Journal*, London, 1977, March 5, vol. i, pp. 626-628.

A retrospective postal survey of people working in National Health Service (NHS), Public Health Laboratory Service (PHLS) and National Blood Transfusion Service (NBTS) laboratories covered over 24,000 staff. It showed highly variable standards of safety and health care. Pre-employment health screening was offered to two-thirds of employees, the physicians being the least likely to be examined (15 per cent). Scottish laboratories provided better safety control than English and Welsh laboratories, while PHLS laboratories had a better record than NHS establishments. Mouth pipetting is still practised in 65 per cent of English and Welsh laboratories, and the use of protective clothing is rarely compulsory. The servicing of safety cabinets is often inadequate. Known and suspected carcinogens are still apparently used in a few laboratories (two to 10 per cent). In view of the wide variation in standards among laboratories, urgent consideration should be given to establishing regulations for codes of safe practice rather than relying merely on recommendations as at present.

SPECIAL CLASSES OF STAFF

ADMINISTRATIVE AND CLERICAL STAFF

795. MCNERNEY, W. J. **The role of executive.** *Hospital and Health Services Administration*, Chicago, 1976, vol. 21, no. 4, pp. 9-25.

The growing dependence on technology has resulted in more hospitals being geared to the technocrat rather than the user, and an increasing number of outside pressures and influences have reduced the perogatives of management within the hospitals. Attitudes of the public towards health services have altered and there is now a need for important organizational and functional changes. Commercialism has increased together with the need for better management within the hospital and the health services. The key elements of management are discussed. Possible future reforms of hospital administration are considered in the light of the increasing demand for community welfare. The work of the hospital administrator will become in the future increasingly concerned with management skills involving clinical, political, economic affairs, not merely the technical processes.

796. BOISSONEAU, R. **Administrators support the concept of mandatory continuing education for the profession.** *Hospital and Health Services Administration*, Chicago, 1976, vol. 21, no. 4, pp. 35-46.

A study of hospital administrators was carried out in 1974 to determine whether administrators and other professionals consider that hospital administrators should be required to follow in-service training courses. The results indicated that 64.5 per cent of

administrators, 73.4 per cent of the heads of department, 64.9 per cent of the board chairmen and 69.0 per cent of the hospital related health executives believed that administrators should follow education courses. There was no statistically significant difference between the responses of administrators of large or small hospitals. The results indicate that administrators are convinced of the need for in-service training and that age, experience and education does not make a difference to this belief.

MEDICAL STAFF

See also Abstract No. 893

797. PINEAULT, R. **The effect of medical training factors on physician utilization behavior.** *Medical Care*, Philadelphia, 1977, Jan., vol. 15, no. 1, pp. 51-67.

The influence of medical school, teaching hospital and specialization on doctors' use of clinical and technical resources is studied. The 34 internists in the prepaid group practice setting of Kaiser Permanente, Portland, Oreg., were studied. The results indicate that doctors trained in medical schools and hospitals with a scientific medical orientation generally use fewer such resources than other doctors. However, when diagnosis is unknown they tend to use more services. The findings indicate that doctors trained in these settings are more flexible than other doctors in that they can adjust more readily to the situation. The implications that such variations in doctors' behaviour may have noticeable effects on cost and quality of medical care require further analysis.

798. ROYAL COLLEGE OF PHYSICIANS OF LONDON. **The deployment of doctors in the medical specialties: a report of the Standing Committee of Members.** London, Royal College of Physicians of London, 1977, 17pp.

This report considers two questions: (i) whether the work currently done by hospital doctors in the clinical specialties can be reduced, done outside the district general hospital, done by other health professionals or done more efficiently; and (ii) whether hospital doctors are deployed as effectively as possible. The Committee believe that standards of medical care can be maintained and in part improved without a significant overall increase in hospital medical manpower. It suggests several means for discussion of and research on the problems of the efficient use of medical manpower. The major initiative for making the best use of medical staff rests with the consultants. Pre-requisites to decision-making on deployment are discussed.

799. MCMANUS, I. C., LOCKWOOD, D. N. J. and CRUICKSHANK, J. K. **The preregistration year: chaos by consensus.** *Lancet*, London, 1977, Feb. 19, vol. i, pp. 413-416.

A questionnaire was sent to all pre-registration housemen who had graduated from the University of Birmingham Medical School in July 1975 and who were just completing their second house job. Attitudes towards the houseyear, sources of discontent and the influence of this discontent upon the future of these doctors were analysed. The results revealed much dissatisfaction with the workings of the houseyear, specifically with the long, sleepless hours of work, the negligible educational role of the year, the

lack of time for human contact with patients and the tedious, repetitive nature of the work. It is proposed that a shift system would solve many of the problems and result in a better deal for both doctors and patients.

NURSING STAFF

See also Abstract Nos. 793, 866, 867, 902

800. CAHOON, M. C. **Developing clinical specialist roles.** *Nursing Mirror*, Sutton, 1977, March 24, vol. 144, no. 12, pp. 66-68.

The development of clinical specialist roles in nursing is taking place in the middle of rapid changes in health care and society. The forces that may influence role learning are identified as a basis for reducing stress in role development. These may develop from a need for development and improvement of patient care. Role learning for the clinical specialist is discussed together with role expectations. Staff relationships must be reconsidered together with the development of new role sanctions. Reduction of resistance to the development of clinical specialist roles will enable them to be accomplished with less stress than would an increase in the forces for change. The circumstances are outlined in which this resistance will be less.

801. FOTTLER, M. D. and PINCHOFF, D. M. **Acceptance of the nurse practitioner: attitudes of health care administrators.** *Inquiry*, Chicago, Ill., 1976, Sept., vol. 13, no. 3, pp. 262-273.

The alleged shortage of physicians, registered nurses and other types of skilled and highly paid health manpower in the United States has resulted in the development of 'nurse practitioner' roles to relieve the physician of many routine tasks and provide the nurse with a non-administrative avenue for upward mobility within nursing. The theoretical framework in the likelihood of the 'nurse practitioner' being adopted is discussed. A study to provide information on the acceptability of and possible support for the concept in Western New York was carried out. The results revealed that 59 per cent of administrators believed that the nurse practitioner would be an asset whilst nine per cent believed that she would not, although only 46 per cent indicated that they would be willing to employ a nurse practitioner. The implications of the results indicate that there is confusion and uncertainty concerning the concept of nurse practitioners. The nurse practitioner has a higher likelihood of being accepted in public health departments, large institutions and those with a high proportion of doctors and registered nurses, or where nursing administrators play a major role in decision making. There is a need for more information on the role of the nurse practitioner, and the laws regarding professional licences should be amended to recognise their role and functions; this would lessen the anxiety felt by administrators.

802. CHARLES, S. T. and GILLOTT, M. **Equating ward staff with work loads.** *Nursing Times*, London, 1977, Feb. 24, vol. 73, no. 8, occasional papers, pp. 29-32.

The idea that the staffing establishment of a ward could be based on its work load is developed. A technique is examined that may give practical help in solving the problem of: (i) long-term staff allocation; (ii) placement of part-time staff; and (iii) short-term

planning of the duty rota. The study is limited to the day shifts from 0745 to 2130 and is only concerned with the total work of the day, not with its distribution within the day. All nurses are considered equal regardless of their grade. The results indicate that the study is a potentially powerful tool for nursing management. The method is universally applicable although it requires some refinement. Once the initial work is done the method can be quickly and easily used by everyone.

803. SHEAHAN, J. **Curriculum development in nursing education.** *Nursing Mirror*, Sutton, 1977, Jan. 20, vol. 144, no. 3, pp. 53-55; Feb. 17, vol. 144, no. 7, pp. 56-58; Mar. 17, vol. 144, no. 11, pp. 59-61.

The concept of curriculum is defined. It can be many things to different people and as such is better viewed in the context of the perspectives which it embodies, including: philosophical, political, management, social and economic, academic and theoretical aspects. The outcomes of learning and needs of society must be considered both from the needs of the nation as a whole and local needs. Sources of information for curriculum planning may be the views of learners, ward records, observations by student tutors, and the professional disciplines. A list of objectives reflecting these sources of information can be established from the cognitive domain, the affective domain and the psychomotor domain. The advantages of having the curriculum expressed in explicit terms are discussed. The theory of knowledge raises questions about the relationship of the disciplines to the development of the mind and the nature of knowledge. The focus for the integration of nursing knowledge is Man and his primary needs. Threats to health and the social aspects of Man's make-up are essential areas of knowledge for the practice of nursing. The relationships between the various factors that give rise to a state of health are discussed. Nursing is a diffuse activity which draws on the knowledge of other disciplines; it is also an emerging profession and is consequently at the receiving end of the knowledge explosion. Integration between areas of knowledge can be achieved by considering Man as a unified whole with a number of basic needs.

804. FREY, M. **Planning for nursing service.** *Hospital Progress*, St. Louis, 1976, Oct., vol. 57, no. 10, pp. 78, 80-81.

The planning process for a nursing service is people-centred rather than project-centred and proceeds according to a knowledge of basic principles of administration and an understanding of the purpose of the organization, objectives and standards required. The characteristics of successful planning are discussed, together with the types of plans and time span. A plan is generally effective if: (i) it is in line with the objective; (ii) indicates the procedures for putting the plan into action; (iii) can be communicated; (iv) is operational and professionally sound; (v) represents an integrated whole; (vi) allows for alternative courses of action; and (vii) uses human talents, abilities and skills to their maximum potential.

805. MACKAY, C. and AULT, L. D. **A systematic approach to individualizing nursing care.** *Journal of Nursing Administration*, Wakefield, Mass., 1977, vol. 7, no. 1, pp. 39-48.

This paper describes a systematic plan which can be used to move nursing care from a functional, task-oriented approach to individualized nursing care that meets the

physical, psychological and social needs of the patient. It deals solely with the nursing approach to patient care and recognizes that individualized patient care is an interdisciplinary effort. The characteristic features of functional and individualized nursing care are detailed side by side. The proposed plan is composed of preparation and implementation stages. The preparation stage, which is based on the crucial elements of individualized nursing care, lays the foundation for the implementation and as such is basic to the plan. Steps detailed in the preparation are: (i) introduction of the concept (orienting the medical staff, assessing the approach to nursing care, making a commitment); (ii) orientation of nursing staff; and (iii) development of the vehicle (selecting the head nurse co-ordinator, developing a stabilized staffing pattern, defining expectations, developing a communication system, selecting the nursing staff). Steps in the implementation include: (i) nursing care to meet immediate health needs; and (ii) realization of the goal of individualized nursing care (assessing and then meeting the individual patient's needs and problems).

806. LAMONICA, E. L. and others. **Empathy training as the major thrust of a staff development program.** *Nursing Research*, New York, 1976, Nov./Dec., vol. 25, no. 6, pp. 447-451.

The purpose of the study was to: (i) obtain an objective measure of the level of empathy using 39 nurses who practiced in an acute and chronic care hospital; (ii) design a human-relations-modelled staff development programme to train those nurses who scored low on the index of communication; and (iii) test statistically the effectiveness of the staff development programme. Although there were limitations to the study, as it depended heavily on one standardized instrument and rating scale and the sample was rather small, it was found that nurses tested had extremely low levels of empathy. The scores lay almost between hurting another person and only partially responding to superficially expressed feelings. It was also found that the staff development programme significantly raised their level of empathy, and that hospitals ought to incorporate human-relations-modelled in-service programming into their structures to enable their staff to reach the minimal level necessary to help other people successfully.

807. BREU, C. and DRACUP, K. **Implementing nursing research in a critical care setting.** *Journal of Nursing Administration*, Wakefield, Mass., 1976, Dec., vol. 6, no. 10, pp. 14-17.

Nursing research was applied to the coronary care unit of UCLA, Calif., to study the theory of grief and loss. A control group of spouses of critically ill patients admitted to the coronary care unit was interviewed and an experimental phase was established using a specific care plan for the spouse formulated by the nursing staff. The effects of using the results of clinical research added a new aspect to clinical practice, since interviews with spouses of critically ill patients conducted before the implementation of the experimental care plan were markedly different from those conducted after. Needs of grieving spouses are now being met more consistently and completely. Use of nursing research has improved clinical practice, although the approach has required much planning based on a complete evaluation of the driving and resisting forces that exist in this setting. The use of change theory can greatly help the nursing administrator in implementing nursing research.

OTHER PROFESSIONAL AND TECHNICAL STAFF

See Abstract Nos. 873, 895

ORGANIZATION AND ADMINISTRATION

See also Abstract Nos. 804, 805, 903

808. HIRSCHMANN, H. Zentrale oder dezentrale Krankenhausverwaltung. **[Centralized or decentralized hospital administration.]** *Krankenhaus Umschau*, Kulmbach, 1977, Feb., vol. 46, no. 2, pp. 88-89.

This is a report of a discussion among administrators from Schleswig-Holstein and Hamburg on whether centralized or decentralized administration is advisable where a number of hospitals are owned by the same organization. Speakers supported both systems but the general conclusion was that if the hospital organization develops from below and the independence of the hospitals is in principle preferred this leads to economical administration. If however the hospital organization is developed from above and the position of the hospital authority is strengthened this leads to a large central administration with a large staff and greatly increased costs. The basic principle should be 'an administration as decentralized as is at all possible, as centralized as is necessary'.

809. MOORE, T. F. and LORIMER, B. E. **The matrix organization in business and health care institutions: a comparison.** *Hospital and Health Services Administration*, Chicago, 1976, vol. 21, no. 4, pp. 26-34.

The advantages of using the matrix organization in hospitals are compared with the classical pyramidal form of organization. The decentralization and 'team approach' created by the matrix structure allow constructive competition and collective motivation while also providing more and better feedback to all members of the 'team'. The use of regular performance reviews permits successful reporting which allows the individual to know exactly what is expected. The matrix method offers administrators the opportunity to focus their staff resources on patient care and decentralize decision making, allowing a greater interaction between staff and participation in decisions affecting patient care.

GOVERNING BODIES, COMMITTEES

810. PRYBIL, L. D. and STARKWEATHER, D. B. **Current perspectives on hospital governance.** *Hospital and Health Services Administration*, Chicago, 1976, vol. 21, no. 4, pp. 67-75.

The paradox that hospitals are expected to adapt to technological, socioeconomic and demographic changes whilst adhering to the many local, state and federal regulations has created many problems for the governing boards of hospitals in the United States. The theoretical functions and performance of boards are considered. There is a

need to evaluate the actual performance of governing boards and determine the factors that influence their effectiveness. The standards of conduct and accountability are discussed. The influence of federal legislation has resulted in the creation of multiple-unit hospital systems with resultant problems for the governing boards. Governing these systems will require greater attention to long-range corporate planning and strategic decision-making as compared with close involvement in institutional operations. Current trends in the composition of boards are outlined. There is little evidence relating board size, composition, or policies to effectiveness of hospital performance, and the need for more studies on this aspect is discussed.

ECONOMICS OF HOSPITAL MANAGEMENT

See also Abstract Nos. 789, 833, 891

811. MOCH, M. K. **Structure and organizational resource allocation.** *Administrative Science Quarterly*, Ithaca, 1976, Dec., vol. 21, no. 4, pp. 661-674.

A model of innovative adoption is tested against data from United States hospitals. The model reveals the impact of structural development on patterns of innovative adoption in organizations. A study of respiratory disease in 1,000 hospitals using the model revealed that in most cases the model is consistent with the data, the only exception involves the causal relationship between functional differentation and centralization. The data support the thesis that as organizations become larger they become more specialized, differentiated and decentralized. The effect of size has direct effects upon structural attributes and indirectly affects decentralization through specialization. The process of structural development that attends increases in size enables organizations to realize benefits which accrue from the division of work and increasing expertise. Constraints are introduced on the patterns of resource allocation. Overall co-ordination and control may be sacrificed in answer to growth and increased amounts of capital, and organizations in the future may resemble political systems rather than hierachically co-ordinated social systems. Research on large organizations may benefit from including political as well as rational factors in theory construction and testing.

812. THOMSON, J. L. G. **Cost-effectiveness of an EMI brain scanner: a review of a 2-year experience.** *Health Trends*, London, 1977, Feb., vol. 9, no. 1, pp. 16-19.

An attempt to assess the financial implications of an EMI Brain Scanner in Frenchay Hospital, Bristol, from the aspect of the expenditure involved and the possible savings made is outlined. Provided that the demand does not overwhelm the capability of the machine or the X-ray department concerned and provided that a significant proportion of the examinations are carried out on an out-patient basis, the machine justifies the outlay involved and with a satisfactory workload more than pays for itself within a relatively short period of time. The implications for the patient and his well-being are difficult to evaluate in financial terms, but must be taken into consideration. A better service is provided and a less invasive, improved and safer technique is used to investigate those patients with neurological disease.

RUNNING COSTS

See also Abstract Nos. 831, 832

813. WINKLER, H.-J. Massnahmen zur Kostensenkung bei vorhandener kostenstellenrechnung auf vollkostenbasis. **[Cost reduction measures where existing departmental costing is on a full cost basis.]** *Krankenhaus Umschau*, Kulmbach, 1977, Feb., vol. 46, no. 2, pp. 93-94, 97.

It has been estimated that 80 per cent of hospital costs are 'fixed' (that is, unaffected by use of services) and 20 per cent are 'variable' (dependent on use). Examples are cited from West German hospitals of how the cost of units of service can be reduced by increasing performance: e.g., by increasing the number of treatments in the balneology department the deficit could be reduced by fifty per cent. What is important is not so much whether the 'correct' costing system is used as whether the accounting system contributes to efficiency.

BED OCCUPANCY, ECONOMIC USE OF BEDS

814. SIMPSON, J. E. P. **Length of stay.** *Lancet*, London, 1977, March 5, vol. i, pp. 531-533.

Various aspects of length of stay and attempts to reduce it are discussed. Stay in hospital can be prolonged by clinical error or complication, by the patient living alone in poor circumstances, by deficiencies in the geriatric services or the convalescent home, or by a failure to make arrangements expeditiously. Nevertheless, the range in length of stay for particular conditions results as much from force of habit or perverse necessity as from considered judgment. Patients have waited three days for herniorrhaphy; this was made inevitable by the timing of other clinical commitments, and several changes were needed if they were to be unscrambled. Efficiency demands that such an effort be made, but not without thought for the implications in other departments and for the staff. The key words in all these developments must be balance, control and consideration, rather than merely speed. Otherwise patients will be left with a second-rate service from exhausted staff.

815. TODD, J. W. **The use of hospitals. 2. The short-term inpatient.** *Update*, London, 1977, Feb. 15, vol. 14, no. 4, pp. 411-412, 414, 416.

A large proportion of all health resources is devoted to short-stay in-patients. They are given a higher proportion of nurses and doctors, and the cost per patient per week is around £200. Trends in surgery are analysed; some operations may be carried out for cosmetic reasons, others as palliatives. There is still a wide difference of opinion on the length of post-operative stay in hospital. The admission of non-urgent patients for investigation or certain kinds of treatment is discussed. Justification of the duration of stay after an acute illness is analysed, together with the admission of the chronic sick for treatment. The function of an acute medical ward should be to house acutely ill patients. If this policy were universally accepted there could be fewer beds than there are at present. Among the patients who legitimately occupy an acute medical ward, many are there for 'social' rather than 'medical' reasons.

816. YESALIS, C. E. and BONNET, P. D. **The effect of duration of membership in a prepaid group health plan on the utilization of services.** *Medical Care*, Philadelphia, 1976, Dec., vol. 14, no. 12, pp. 1024-1036.

A study of the Columbia Medical Plan, a prepaid group practice in Columbia, Md., was carried out to evaluate the changes in the use of medical care services as the duration of membership in the group plan increased. For each of 10 cohorts of members of the group practice, the use of provider visits, in-patient hospital services, and prescribed drugs were determined, and the intervals of time for each service evaluated. The results indicate that the rate of total provider visits per member per year reaches its peak within the first two quarters of membership in the Plan. Thereafter the rate declines and stabilizes during the second year. Because of the large variations in hospital days, but only a small total number of hospital days, no associations between hospital use and length of membership in the Plan can be drawn.

817. STRANG, I. W., BODDY, F. A. and JENNETT, B. **Patients in acute surgical wards: a survey in Glasgow.** *British Medical Journal*, London, 1977, Feb. 26, vol. i, pp. 545-548.

A survey was carried out of all patients in general surgical, urological, orthopaedic and accident wards in Glasgow on one day in June 1975. The aim of the study was to define features of acute surgical practice relevant to the future planning of resources, particularly bed numbers. Over 40 per cent of the patients in both surgical and orthopaedic wards were over 65 years of age. Most patients had serious conditions and could not have been treated other than by admission to an acute surgical ward. A substantial minority no longer needed these facilities and could have been transferred to second-line beds, although many still required skilled nursing care. The problems of management and after-care are discussed. Delay in the discharge of elderly patients from acute surgical wards as a consequence of non-surgical problems results in a proportion of acute surgical beds fulfilling a second-line function. Unless arrangements for the earlier discharge of these patients are made any reduction in acute surgical beds is likely to restrict elective surgery, especially in orthopaedics.

OFFICE MANAGEMENT AND METHODS

818. **In-patient arrangements: patient location system—visual display board.** (Abstracts of Efficiency Studies in the National Health Service, no. 178) London, Her Majesty's Stationery Office, 1977, [2]pp. £0.25

The management services division of the Trent Regional Health Authority have developed a visual display board for recording patients' names in alphabetical order by ward in order that incoming telephone calls about patients in Doncaster Maternity Hospital could be quickly routed to the correct ward. A series of alloy sliding door tracks were fitted horizontally, one above the other, on a board and wooden blocks were made to fit into the tracks on the basis of one block for each bed in a ward. The blocks are faced with white plastic laminate and can be removed individually from the tracks. When a patient is admitted her name is written on a vacant block which is then fitted in alphabetical order into the appropriate track for the ward. The advantages of

the system are minimal costs and speed, since patient location, patient transfer and the number of beds available can be rapidly determined.

DATA PROCESSING

See also Abstract Nos. 823, 829, 869, 876, 882, 883

819. EUWEMA, M. Beleidsinformatie in de gezondheidszorg—de rol van onzekerheden. **[Management information in health care—the role of uncertainties.]** *Ziekenhuis*, Utrecht, 1977, Feb. 2, vol. 7, no. 3, pp. 82-86.

To study the relationship between management and information the paper analyses the relationship between management and planning, and the characteristics of health care and information required by management. Management refers to objectives and direction; planning concerns the choice of means. Responsibility for management rests with people and groups at local, regional and national levels. The characteristics of health care are basically elements of uncertainty: demand; keeping a balance between objectives of health promotion, efficacy and social relations; relations between technical 'input' and resultant 'output'; and areas which embrace type of disease, available services and population. The effects of these uncertain elements are greatest at the local level. Careful analysis and development of objectives should supply important information for short and long-term management planning and evaluation, particularly at local level. The current raising of standards requires higher quantities of input, which is reflected in costs, whereas the quantity of output cannot be assessed. Thus costs provide a one-sided picture. It is suggested that the present hospital tariff system be replaced by a system of internal budgeting suited to the particular hospital's organization. This should provide useful information for management. Development of a regular internal publication system is also recommended.

ORGANIZATION AND METHODS, WORK STUDY

820. DERN, G. Bewertung der operativen und medizinisch-technischen Leistungen zum Zwecke von Betriebs- und Zeitvergleichen. **[Evaluation of operative and medico- technical performance with a view to comparing and relating time spent to activity.]** *Krankenhaus Umschau*, Kulmbach, 1977, Feb., vol. 46, no. 2, pp. 90-92.

A uniform method of assessing performance in a hospital laboratory is described. It is based on what is called 'equal cost units of production' in which the various laboratory tests are costed according to time taken and each is allocated a proportional number of units. The costs are made up of three elements: labour costs, materials costs and maintenance costs. The method enables comparisons to be made within the hospital from month to month and it also, since the standard value would be applicable to all hospitals, allows comparisons with other hospitals. The paper also includes an example of how the performance of individual physiotherapists can be assessed and compared on the basis of a cost factor.

MEDICAL RECORDS

See also Abstract No. 860

821. WALKER, J. **How the centralized patient record works.** *Dimensions in Health Service*, Toronto, 1977, Feb., vol. 54, no. 2, pp. 32-33.

The Children's Hospital of Eastern Ontario, Ottawa, now issues to each new patient a plastic identity card, which serves as the key to an inexpensive record system. The record department now handles in-patient, emergency, out-patient and doctor's office records all in one file. The equipment used is outlined. Good colour-coded file jackets, mechanized file shelves and a master index housed in a compact automatic card machine are features of the system. The patient index is filed phonetically. The use of random filing is discussed. The advantages of using terminal digit filing for savings in time and cost are outlined. In very few areas of the hospital is an office file now required in the doctor's office since doctors use the combined file. The advantages of this system are discussed. This form of centralized admitting and record system can be used in almost any hospital using the space now available to the conventional in-patient departments. The system requires staffing seven days a week up to midnight, to ensure that the emergency patient is cared for and that all files are ready and waiting first thing in the morning.

822. ZSCHAEGE, I. and HÖPFNER, J. Zur Nutzung der Krankenblattdokumentation für Leitung und Plannung der medizinischen Betreuung im Bezirk Halle. **[The use of medical records in the planning and management of medical care in the County of Halle.]** *Zeitschrift für die gesamte Hygiene und ihre Grenzgebiete*, Berlin, 1977, Jan., vol. 23, no. 1, pp. 50-52.

Using as an example figures obtained from the electronic data processing of hospital medical records for the Halle district of East Germany the authors show how such data can be used to assess the quality of medical care and for the planning of bed needs. The data is produced in tables showing: cases by specialty in absolute numbers and as a percentage of all cases; average length of stay of selected diagnosis by age, sex and specialty; diagnosis with an in-patient mortality of more than 15 per cent, by specialty; and in-patient mortality of selected diseases by age, sex and specialty.

823. SCHMITZ, H. H. **A protocol for evaluating hospital information systems.** *Hospital and Health Services Administration*, Chicago, 1977, vol. 22, no. 1, pp. 45-56.

The need for a thorough evaluation of an electronic management information system is vital to a hospital in view of the high costs, and possible non fulfillment of predicted justifications. An evaluation team should consider three aspects: the effect that the system will have on the patient; the effect of the system on the behaviour of the staff; and the economic effect of the system on the organization. The timing of the evaluation is important, together with the research design and setting of the evaluation. Reasons for conducting the evaluation include: (i) need for a new system; (ii) cost of a non-functioning system; and (iii) whether hardware or software elements should be added or deleted. Evaluation is a highly specialized task which is difficult and time consuming. but the results and information provided by the evaluation will pay dividends.

HOSPITAL ACCREDITATION AND SIMILAR SCHEMES

824. MURRAY, J. H., SWANSON, A. L. and KNAUF, C. **Canadian Council on Hospital Accreditation project shows clinical appraisal can be satisfying.** *Canadian Medical Association Journal*, Ottawa, 1977, Jan. 22, vol. 116, no. 2, pp. 200-201, 203-205.

In order to maintain and improve a high professional standard in hospitals, medical staff have formed medical audit committees. However in hospitals wide audit variations in medical records from different departments may create problems. To overcome such difficulties the CCHA has proposed the criteria system of appraisal because it is: comprehensive, economical of professional time, efficient, interesting and useful for reviewing the efficient use of hospital resources. There are nevertheless imperfections and inherent weaknesses in the criteria system and its ultimate effectiveness has not yet been validated. Unfortunately the studies carried out are expensive and time-consuming and are not applicable to all diseases.

PUBLIC RELATIONS

825. GOATES, L. B. **A compelling public relations challenge for American hospitals.** *Hospital and Health Services Administration*, Chicago, 1976, vol. 21, no. 4, pp. 47-66.

A new approach to public relations is required by hospitals in the United States. The economic problems affecting the health services are outlined and the need for urgent action on the part of the hospitals discussed. The role of advertising is considered, together with the establishment of a modern and efficient public relations system in every hospital. The response from the public to television programmes can be used to the advantage of the hospital service. Problems involved in making television programmes are considered. The advantages of a well financed public relations scheme in all hospitals using modern advertising and communication methods would result in improvements throughout the health care industry.

LEGAL ASPECTS OF HOSPITAL ADMINISTRATION, SECURITY

826. GIROUX, F. **Style and selection of hospital safety.** *Dimensions in Health Service*, Toronto, 1977, Jan., vol. 54, no. 1, pp. 30-32.

The modern concept of a security department within a medical institution is to make every member of staff aware of their own personal safety as well as that of others. The elements of a hospital security force are considered. The system should be unobtrusive coupled with the firmness of a police force. The security officer should be trained to meet any situation with the minimum of force required. The investigation of thefts could be carried out by the security department together with the checking of personal records. The need for continuous staff education on security is discussed. The responsibility for carrying out training exercises for fire, safety and security should be given to the security department. A professional security, fire and safety expert should organize all the exercises for maximum efficiency and cost reduction. The cost advantages of

hiring contract security services are considered. The need to upgrade the quality of the security officer has resulted in a tendency to employ retired military or police men because of their high levels of personal discipline. Courses for potential security officers are now being held but it is up to the individual institutions to further train the security officer in the security methods of the particular institution.

FINANCE AND ACCOUNTING

FINANCE

See also Abstract Nos. 816, 878

827. KOZA, J.-P. La trésorerie de l'hôpital. **[The hospital treasury.]** *Revue Hospitalière*, Paris, 1977, Jan., vol. 41, no. 297, pp. 59-61, 64-69, 71-87.

Hospitals have the doubtful reputation of being the worst payers in France. They are scarcely to blame. On average three months elapse before the hospital is paid for services rendered. Subsidies and loans for capital projects are paid only on completion. The Treasury does not allow credit or give discounts; the hospitals have to pay VAT and wages tax, and their accounting system is ill adapted to a period of high inflation. The author makes suggestions for reform, which include the centralized management of all hospital finance departments, easier loan facilities, tax credits, permission to raise prices immediately higher costs are incurred, and to levy VAT on their services. There are six annexes to the paper, one of which deals with joint management of debt redemption.

828. Rapport à Madame le Ministre sur les problèmes de financement des hôpitaux. (1). Examen de la situation actuelle. **[Statement to the Minister of Health on the problems of financing hospitals. 1. A study of the present situation.]** *Hospitalisation Nouvelle*, Paris, 1977, Jan., no. 56, pp. 18-32.

A series of 13 tables and three graphs presents a picture of public hospital income and expenditure, running costs, investment, loans, subsidies, and construction costs in 1966 and 1971; these show how rapid was the rate of inflation during that period. Part of this increase has been beyond the control of the hospital authorities but measures such as the development of analytical accounting, management control systems, the use of data processing, more group purchasing, and a more rational approach to the purchase of medical equipment should help to reduce the rate of inflation. It is suggested that there should be more state subsidies to the hospitals, particularly for the purchase of equipment, and that the present levels of subsidies (20 to 50 per cent for some equipment and 30 to 80 per cent for equipment for emergency services and high risk maternity cases) should be raised.

829. REPS, D. **Sort dp proposals with this input/output cost matrix.** *Hospital Financial Management*, Chicago, 1977, Jan., vol. 31, no. 1, pp. 31, 34-35, 38-44.

The variety of computer systems and services for use in hospitals is considered. In theory, every hospital in the United States could have its own unique system of approaches to its computer subsystem. A project plan adapted by a hospital to help

management decide which system to adopt is presented. The project steps are outlined and the problems of comparing and evaluating the systems discussed. A cost framework is the principal evaluation tool since the method provides an objective assessment of the proposals confronting the administrator when he contemplates the computer systems market.

830. PENDOLA, C. J. **Hospital budgeting: a case study approach.** Hicksville, N.Y., Exposition Press, 1976, 80pp. $10.00

This book is based on a study of the budgetary procedures used in three New York hospitals: a 251-bed voluntary acute general hospital, a 309-bed sectarian acute general hospital and a 1,150-bed municipal long-stay institution. The budgetary procedure in use in each of the hospitals at the time of the study is described and a critique of it presented. The main conclusions of the study are: (i) budgetary procedures, as currently used, are an important set of tools for forecasting hospital costs; (ii) appropriate forecasting of costs enables administrators to garner sufficient revenue to meet rising costs; and (iii) a hospital's budget serves as a blueprint for its operation and a yardstick for evaluating performance. A model of an adequate budgetary system is presented, together with an analysis and justification of that model.

831. BERRY, R. E. **Prospective rate reimbursement and cost containment: formula reimbursement in New York.** *Inquiry*, Chicago, Ill., 1976, Sept., vol. 13, no. 3, pp. 288-301.

The rising costs of hospital care in the United States have resulted in the development of several formulas to effect cost containment. The long-term price trends and nature of the general problem of inflation are discussed. In addition, there is an incentive for hospitals to engage in cost-increasing activities as a result of the current reimbursement system. Hospital cost inflation is viewed as a demand-pull inflation rather than a cost-push inflation. The New York experience with formula-based prospective rate reimbursement is discussed. There are three specific formulas: one for all Medicaid patients; one for all Blue Cross patients in the metropolitan New York City area; and one for all the Blue Cross patients served by the seven Blue Cross Plans in upstate New York. The system amounts to a cost-containment mechanism that involves price controls in general and includes certain additional specific constraints on capital inputs. The general impact on New York and on hospital behaviour is discussed. The impact of the system has produced not only some net moderation in the rates of increase of prices and costs, but also some increase in average length of stay and occupancy rates. It appears that New York has developed a form of revenue control rather than cost control by using the formula. The evidence tends to support the hypothesis that demand changes lead to price changes that generate changes in quantity, quality and complexity with subsequent cost implications. There is also evidence that the increased demand provided hospitals with increased net revenues which financed increased quantities of both labour and non-labour inputs.

832. HELLINGER, F. J. **Prospective reimbursement through budget review: New Jersey, Rhode Island and Western Pennsylvania.** *Inquiry*, Chicago, 1976, Sept., vol. 13, no. 3 pp. 309-320.

Three prospective budgeting experiments were studied in an attempt to assess the

ability of budget review prospective rate systems to control hospital costs in Rhode Island, Western Pennsylvania and New Jersey. The results indicated that the budget review schemes in New Jersey and Rhode Island, using rates set by a hospital-by-hospital budget review, were ineffective in controlling hospital costs. Results from the evaluation of the budget review and formula-determined prospective rate system in Western Pennsylvania indicate that experimental hospitals registered smaller increases in costs for non-medical departments than the control hospitals. All hospitals in New Jersey and Rhode Island, participate in their prospective budget review programmes. The effectiveness of each system was evaluated. Prospective rate systems that determine reimbursement rates through a hospital-by-hospital budget review process have many problems for the operating organisation, since budget review and negotiation schemes are cumbersome, taking up much time and effort. There is difficulty in comparing hospital budgets due to differences in accounting and reporting formats. The results indicate that a preliminary analysis of hospital budgets by cost and productivity screens is the only administratively feasible approach towards implementing a prospective rate system based upon the budget review concept.

833. WORTHINGTON, P. N. **Prospective reimbursement of hospitals to promote efficiency: New Jersey.** *Inquiry*, Chicago, 1976, Sept., vol. 13, no. 3, pp. 302-308.

Prospective reimbursement is characterized by rates set prior to the circumstances giving rise to claims. Hospitals in New Jersey are reimbursed according to a per diem assessment rate ceiling based on an intensive review of historical costs and use, a prospective budget and special studies of costs and productivity, department by department, within the hospital. The behaviour of prospective per diem rates in New Jersey Hospitals is discussed and the formulas used for estimating the rates are outlined. The significant properties of the prospective reimbursement rates are: (i) they are related in a stable and uniform way to per diem costs lagged one period: (ii) the unit that is priced is the 'patient day'; and (iii) a unique per diem rate is determined for each hospital. The empirical analysis of the New Jersey prospective rates describes a stable relation between prospective per diem rates and lagged per diem costs. However, this feature of the rate process coupled with the effect of hospital size compromises the attempt to impose an exogenous constraint on the hospital's cost decision, and given the dollar-for-dollar matching of lagged per diem cost, the bonus feature of the rate process makes it attractive to incur more rather than fewer expenses.

HOSPITAL ACCOUNTING

834. MUNDHENKE, E. and RUDOLF, R. Neuordnung und Automatisierung zum 31.12.1977—Probleme und Lösungswege. **[Reorganization and automation by 31.12.1977—problems and solutions.]** *Krankenhaus Umschau*, Kulmbach, 1977, Feb., vol. 46, no. 2, pp. 84-87.

Recent West German legislation requires that by 31 December 1977 hospitals must have switched to a commercial-type book keeping and accounting system which should be automated and linked to a computer centre. This presents considerable difficulty. In the first place hospitals will have to meet 80 per cent of the costs themselves since the federal or *Land* grant towards expenses only amounts to 20 per cent. Then it is unlikely

that the soft-ware package will have been developed in time to meet the deadline. Hospitals will need to take care that the cost of the switch does not exceed the eventual savings expected from the new system. It is suggested that the only way that hospitals can fulfill the conditions laid down is for them to enlist the services of an independent adviser.

SUPPLIES AND STORES

PURCHASING

835. HOUSLEY, C. **The case for centralized purchasing.** *Dimensions in Health Service*, Toronto, 1977, March, vol. 54, no. 3, pp. 20-21.

The concept of centralized purchasing is discussed, and the advantages and disadvantages are presented. Centralized purchasing sets the professional tone for the whole material management scheme of the hospital, promoting uniform purchasing and receiving processes and ultimately increasing efficiency. Standardization is improved together with adherence to specifications. Backdoor buying and selling disappears. Centralized purchasing relieves the various departments of the time and effort it would normally take to interview sales representatives. The advantages of centralized purchasing will ultimately promote the system if presented in the correct manner.

CATERING, DIETETICS, KITCHENS

KITCHENS

See Abstract No. 836

FOOD SERVICE

836. Verzorgingshuis 'De Koperhorst' te Amersfoort: portioneren van maaltijden via tray-rail is goede oplossing voor 'kleine' grootkeuken. **[The De Koperhorst nursing home, Amersfoort: portioning of meals by tray-rail is a good solution for small central kitchens.]** *Voeding- en Huishoudgids voor Ziekenhuis en Instelling*, Amsterdam, 1976, Dec. 13, vol. 43, no. 527, pp. 580-582.

'De Koperhorst' nursing home, requiring 120 meals a day, has developed a comparatively simple food distribution system. Four kitchen staff are employed seven days a week, working staggered hours from 0700 to 1600. Midday meals are cooked in the morning. Cold meals for the evening and the following morning's breakfast are prepared in the afternoon and stored for each patient in an individual container. The specially-designed kitchen has a vegetable section, a 'cooking island' and a cool room for storing 120 meals. Portioning is carried out in the kitchen by four people (including ward assistants) along a tray-rail and a working table, according to codes from menu cards. Food is placed in three-section porcelain dishes with double-wall underplates and

single-wall lids. Completed trays are stacked on to unheated trolleys for the departments, each holding 20 trays. Distribution is done by ward assistants who also collect the dirty dishes. Washing-up is carried out by two persons with the aid of a corner dish washer and a special hosing arrangement for cleaning trolleys. The paper includes a plan of the kitchen and six pictures.

LAUNDRIES AND LINEN SERVICE

HOSPITAL LINEN AND TEXTILES

837. LOWTHIAN, P. T. and others. **Underpads for preventing pressure sores.** *Nursing Mirror*, Sutton, 1977, March 10, vol. 144, no. 10, pp. 66-69.

Nursing underpads are loose pads designed to absorb excreted fluids or to assist in preventing pressure sores. A pilot study to test the feasibility of a large scale trial of the prevention of pelvic sores was carried out at Northwick Park and Harrow Hospitals, Central Middlesex Hospital and Watford General Hospital from November 1973 to July 1975. The results indicated that there was a strong association between incontinence and the incidence of pelvic sores. A trial design of three types of underpads was tested. The results indicated that fewer patients on a pad composed of flexible polythene foam enclosed in towelling (B) developed sores than did those patients on pads composed of polyester fleece 'pile' with a knitted or bonded polyester backing (A), or disposable pads composed of rayon fleece and cellulose wadding covered with a waterproof plastic backing (C). Pad A had a relatively high surface friction which may account for the comparatively large number of serious sores. All three pads appeared to prevent skin maceration. Both types of washable pads could be laundered without special treatment. Pad B appeared the most effective for protecting the bed, and pad A the least effective. The cost-effectiveness of each type of pad is being analysed and a definitive controlled trial of nursing underpads appears feasible.

HOSPITAL DOMESTIC MANAGEMENT

DOMESTIC WORK

See also Abstract No. 850

838. BÖHM, P. Welcher Reinigungspreis ist marktgerecht? **[Which cleaning price is geared to market conditions?]** *Krankenhaus Umschau*, Kulmbach, 1977, Feb., vol. 46, no. 2, pp. 76-78.

The author examines the question of tenders for contact cleaning services and draws attention to the differences in charges which, based on a survey carried out in West Germany, can vary by nearly 100 per cent. He sets out a number of criteria which can be used in determining the acceptability of tenders. One of the most important is the proportion of the total charge allocated to wages.

839. KORN, D. Organisation der Krankenhausreinigung; Erfahrungsbericht aus einem 460-Betten-Krankenhaus. **[Organisation of hospital cleaning: report on a 460-bed hospital.]** *Krankenhaus Umschau*, Kulmbach, 1977, Feb., vol. 46, no. 2, pp. 72-74.

A hospital which previously worked with a completely decentralized cleaning service (each department and ward had its own cleaners for which it was individually responsible) decided eighteen months ago to switch to a fully centralized service. It was decided that the new service should be run on a contract basis. Details are given of the terms of the contract with the selected firm. A transitional period of three months was allowed for the change over but in fact the switch was made well within that period without disruption of routine. The new system has been proved to be entirely satisfactory and has relieved ward and other staff of duties outside their professional responsibilities.

840. MACKENTHUN, A. M. Rationalisierung des Reinigungsdienstes bei öffentlichen institutionen. **[Rationalisation of the cleaning services in public establishments.]** *Krankenhaus Umschau*, Kulmbach, 1977, Feb., vol. 46, no. 2, pp. 74-75.

It has been shown that contract cleaning for public establishments can save up to 50 per cent of the cost as compared with the establishment running its own service. As far as hospitals are concerned specialist firms can provide the high performance cleaning and disinfecting techniques necessary to maintain adequate standards of hygiene. It is suggested that when a hospital is considering a switch to contract cleaning it should enlist the services of an independent adviser who would carry out the necessary investigations before making recommendations.

HYGIENE IN THE HOSPITAL

841. TOMASELLI, S. Il ruolo dell'igiene nelle contruzioni ospedaliere. **[The role of hygiene in hospital construction.]** *Ospedali d'Italia*, Roma, 1977, Jan., no. 1, pp. 51-73.

The problems of cross infection and superinfection are reviewed from the points of view of building design, hygiene, and cleaning. Good design will ensure separation of departments which have high levels of infection, the separation of routes for clean and dirty materials and equipment, and a well-planned air-conditioning system with filters which are easy to clean. Beds should be sterilized centrally before use; refuse should be removed by automatic means; laundry equipment must be up-to-date. Staff, who should observe strict rules of hygiene, should be allocated to a particular unit and not changed around every few days. Particular attention should be paid to cleaning, to the elimination of insects, especially cockroaches, and to rat proofing. Modern methods for disinfecting operating theatres are described.

HOSPITAL INFECTIONS

842. WENZEL, R. P., OSTERMAN, C. A. and HUNTING, K. J. **Hospital-acquired infections. II. Infection rates by site, service and common procedures in a university hospital.** *American Journal of Epidemiology*, Baltimore, 1976, Dec., vol. 104, no. 6, pp. 645-651.

A surveillance system for hospital infections is used at the University of Virginia

Hospital, which requires 16 manhours/week to survey the 560-bed hospital. The system is 82 per cent accurate when compared to daily prospective chart reviews of all patients. Over a three year period 3,432 hospital infections occurred. The overall monthly rates varied from 4-9/100 admissions with particularly high rates in the Newborn Intensive Care Unit (24/100). Annual rates $\geq$ 10/100 admissions were found in major surgical services of general surgery, neuro-surgery, thoracic cardiovascular surgery, plastic surgery and urology; 1,234 urinary tract infections accounted for 36 per cent of the problem. The rate of urinary tract infections after catheterization was 13/100 procedures, with high rates for patients in neuro-surgery (37/100), orthopaedics (23/100) and plastic surgery (18/100). There were 524 nosocomial pneumonias (.94/100) and the rate was especially high (3.7/100) for patients admitted to the thoracic cardiovascular surgery unit. The aim of the surveillance system is to seek control measures by identifying the overall problem and thereafter focusing on high risk procedures. Benefits of procedures can be weighed against the hazards, and doctors may be able to compare the risks of infection following procedures at other hospitals.

843. BINT, A. J. and others. **An outbreak of infection caused by a gentamicin-resistant** *Staphylococcus aureus*. *Journal of Clinical Pathology*, London, 1977, Feb., vol. 30, no. 2, pp. 165-167.

An outbreak of infection caused by a strain of *Staphylococcus aureus* resistant to gentamicin, tobramycin and other antibiotics occurred in a general medical ward and an opthalmic ward of a Birmingham hospital. Eight patients were colonized, of whom six had clinical infections. Previous administration of gentamicin appeared to predispose the patients to infection with the strain. Restriction of the use of gentamicin and tobramycin is essential to retain their usefulness in serious infections. The frequent use of topical preparations of gentamicin should be actively discouraged.

844. ROSENDAL, K. and others. **Reduction of multiresistant staphylococci in Danish hospitals, 1967-1974. In: Staphylococci and staphylococcal diseases: proceedings of III International Symposium on Staphylococci and Staphylococcal Infections, Warszawa, September 8-14, 1975, editor Janusz Jeljaszewicz, pp. 1027-1032.** Stuttgart, Fischer, 1976.

A sharp increase in multiresistant methicillin resistant hospital staphylococci was experienced during the late 1960s in Denmark. The strains were isolated from bacteraemia cases in hospitals all over the country. However from the beginning of the 1970s there was a decline in the multiresistant strains. A description of the evolutionary events within the staphylococcal population in Danish hospitals, together with investigations of the possible causes for the changes observed is presented.

845. HAMBRAEUS, A. and RANSJÖ, U. **Clothes-born transmission of staphylococci—attempts to control** *Staphylococcus aureus* **infections in a burns unit. In: Staphylococci and staphylococcal diseases: proceedings of III International Symposium on Staphylococci and Staphylococcal Infections, Warszawa, September 8-14, 1975, editor Janusz Jelijaszewicz, pp. 981-987.** Stuttgart, Fischer, 1976.

Hospital infection caused by staphylococci has long been a major problem for burns patients. Attempts have been made to control dispersal by increasing the ventilation

of wards. The possibility that *Staphylococcus aureus* can be transmitted through clothing is discussed. Tests were performed in a burns unit using a model nurse wearing the protective garment to be tested over a contaminated uniform. The clothing procedures in the ward are discussed. The results indicated that the contamination of the jackets is five times less when a Tyvek closer-fitting overall is worn than when a cotton gown is worn and 35 times less than without a protective gown. Although suction tests appeared to select a material with promising properties—Tyvek, costumes made of this material did not prove correspondingly effective when tested in standard exercise and model nursing. In clinical trials the Tyvek overall was little better than the conventional cotton gown. It appears that suction tests do not measure the relevant properties needed for good barrier effect in materials. Bacteria may be transmitted in other ways, such as by friction. The reduction of times when protective dress was worn in addition to the discarding of all clothes after wearing protective dress appeared to diminish bacterial spread. The solution may be in the use of patient isolators not in developing better protective dress.

846. BALL, A. P., MCGHIE, D. and GEDDES, A. M. *Serratia Marcescens* **in a general hospital.** *Quarterly Journal of Medicine*, Oxford, 1977, Jan., vol. 46, no. 181, pp. 63-71.

Fourteen patients in a general hospital were seen over an eight-month period in 1975, with infections ranging from superficial colonization of an ulcer to fatal septicaemia caused by *Serratia marcescens*. The study confirmed the hypothesis that *S. marcescens* produces infections in predisposed patients and suggests an 'opportunistic' pattern similar to that previously described in the United States. The organism may be increasing in significance in the United Kingdom and it is thought to be imprudent to continue to use the organism in human experimental work or as a marker in hospital, as clinically significant infections do occur. As *S. marcescens* is usually resistant to all antibiotics other than gentamicin, the finding of apparent sensitivity to co-trimoxazole is of potential therapeutic value.

847. SNYDMAN, D. R. and others. **Transmission of hepatitis B associated with hemodialysis: role of malfunction [blood leaks] in dialysis machines.** *Journal of Infectious Diseases*, Chicago, 1976, Dec., vol. 134, no. 6, pp. 562-570.

A commercial dialysis centre which opened in 1970 serves the Philadelphia and the Delaware Valley area providing dialysis facilities for patients with chronic renal failure. The centre receives referrals from seven major hospitals as well as from several smaller community hospitals, and operates 24 hours a day, six days a week. 152 patients are dialysed three times a week in five hour sessions. In the first 10 months of 1974, 26 out of 60 susceptible patients developed a symptomatic infection with hepatitis B virus. In a case-control study 15 out of 16 cases for whom records were available were found to be associated with leaks or ruptures in the dialysis membranes that had occurred before patients became HB_s Ag positive. The number of malfunctions in machines per patients was greater for cases of infection than for the controls and a correlation was drawn between an increase in blood leaks in machines used with susceptible patients and subsequent increases in cases of hepatitis. The results indicate that the conversion to HB_s Ag positive was linked to blood leaks in the machine and that events that occurred during these episodes caused the spread of infection.

SOURCES OF INFECTION

See also Abstract No. 847

848. BOTZENHART, K. Gefahren durch unsterile Medikamente und Lösungen. **[The dangers of non-sterile drugs and solutions.]** *Krankenhaus*, Stuttgart, 1977, Feb., vol. 69, no. 2, pp. 67-70.

No medicine, infusion or other solution used on patients should give rise to infection as a result of contamination with micro-organisms. While great care is normally taken to prevent contamination during preparation and packaging of medicines and solutions careful inspection is always necessary. One of the greatest risks is the retention of opened bottles and flasks for long periods. An illustration shows 14 opened bottles of solutions collected from two wards: on none of the bottles was there any indication of when it was opened or for what purpose the solution was used. There should be a wider use of small packages or bottles, especially for local anaesthetics and injection fluids. Once a bottle of aqueous solution has been opened it should be used within 12 hours while solutions to be used as food (e.g. milk or albumen solutions) should only be used up to six hours after opening.

PREVENTION AND CONTROL

See also Abstract Nos. 790, 844, 845

849. HNATKO, S. **Protection protocol for hepatitis.** *Dimensions in Health Service*, Toronto, 1977, Feb., vol. 54, no. 2, pp. 36-38.

Although infectious hepatitis (hepatitis A) is mainly spread by the faecal-oral route and serum hepatitis (hepatitis B) by injection, either one can be transmitted by the other route. Guidelines for minimizing the spread of hepatitis in staff are presented. The preparation of a patient for surgery, and procedures in the operating theatre and recovery room are discussed. Records of all positive hepatitis B antigen staff must be maintained. Procedures for patients without clinical hepatitis who are hepatitis B positive in the delivery and case rooms are discussed. Precautions against spreading hepatitis B virus infection depend on awareness of personal risks and the use of good hygienic practices. The need for good personal hygiene amongst staff working in these areas is essential. There is no evidence that heptitis B antigen positive food handlers present a health risk to the general public. Parents and staff in contact with hepatitis B antigen positive patients in psychiatric institutions, nursing homes and community centres should be given instruction in the control and prevention of hepatitis.

850. RIENOW, G. P. Ausbildung und Aufgaben des Desinfektors. **[Training and duties of the disinfector.]** *Krankenhaus Umschau*, Kulmbach, 1977, Feb., vol. 46, no. 2, pp. 79-80.

In West Germany training courses for disinfection officers (for employment by public health offices, local authorities or other institutions) are held at a number of centres: a list of nine of them is included in this paper. The course lasts on average three weeks (about 92 hours) and includes both theoretical and practical instruction

as well as visits. Those who pass the examination at the end of the course are awarded a State certificate. Disinfection officers have to attend a refresher course every three to five years. This course lasts three days and includes theory and practice.

HYGIENE IN THE THEATRE

See Abstract Nos. 852, 870

STERILIZATION

See also Abstract No. 780

851. WELLS, L. L. **Programming a central service. Part 3.** *ASSA Journal*, Matlock, 1977, Feb., vol. 5, no. 3, pp. 3-4.

The instrument storage and assembly area of a central sterile supply department varies according to the number of operating rooms, type of surgery being done and the number of different surgical specialities being supported. Space required for storage is calculated together with the size of the assembly areas and sterilization areas. The equipment required in these two areas is presented. Calculation of the sizes of the sterile storage area, equipment and cart holding area, cart queueing area, administrative area and support areas is discussed. The queueing formula is used to determine the amount of equipment required; storage space requirements are based on inventory levels; space for carts is based on the number of carts moving through or parked, and support facilities are based on staff requirements. The central service must be designed so that material flows through in an orderly and logical manner.

AIR HYGIENE

852. KARSKI, J. and SYCH, M. **A simple device designed to protect operating theatres against atmospheric pollution by volatile anaesthetics.** *Anaesthesia, Resuscitation and Intensive Therapy*, Basel, 1976, Jan./March, vol. 4, no. 1, pp. 61-64.

A new device enabling the excess of anaesthetic vapour to be discharged outside the operating theatre has been developed. It is a positive pressure valve encased in the breathing circuit and one-way Ruben's valve, as well as a modification of the Ree's system. The devices and modifications are completely reliable owing to their simplicity and their construction is cheap. They effectively reduce the degree of atmospheric pollution in the operating theatre with anaesthetics used in inhalation anaesthesia. They may be applied to every type of apparatus used for general anaesthesia. Three diagrams of the device are included.

PERSONAL HYGIENE OF THE PATIENT

853. JACOBSON, L. and PALMQVIST, S. Munhygien hos sjukhuspatienter—en bortglömd fråga. **[Hospital patients' oral hygiene—a forgotten problem.]** *Vårdfacket*, Stockholm, 1977, Feb. 24, vol. 1, no. 4, pp. 56-60.

Bacteria in the hospital environment, and the patient's state of illness, involve a

reduced level of oral hygiene. The patient should be enabled to look after his own oral hygiene daily as far as possible, and should be helped where he cannot manage himself. The intake of sweets, sweet drinks and sweetened medicines should be severely limited. In the event of reduced salivation and dryness of the mouth, salivation can be promoted by Ascoxal-T; acid drinks should never be used for this purpose. Dental appliances should be kept scrupulously clean by means of brushes and/or special agents. Many of the brochures available, purporting to give advice on hygiene, in fact comprise advertising material.

SAFETY MEASURES

See Abstract No. 826

ACCIDENTS, GENERALLY

854. BOURDAIS, E. L. **Accidents in hospitals.** *Dimensions in Health Service*, Toronto, 1977, Feb., vol. 54, no. 2, pp. 25-28.

A survey of the variety of accidents that occur in daily treatment of patients in active care, extended care and psychiatric facilities in Canada was carried out by the Canadian Hospital Association in 1976. The results indicated that although the acute, extended care and psychiatric hospitals have goals and services in common, they experience different types of accidents which are frequently more common within their own particular classification. Back strains were identified as the most frequent form of injury. They were virtually tied in incidence with slips and falls in psychiatric hospitals. Slips and falls were second in frequency in most of the psychiatric and extended care facilities but acute care hospitals had a higher incidence of cuts and abrasions with slips and falls third. The reasons behind the accidents are analysed. The majority of the accidents were felt to be preventable. The promotion of safety within hospitals is considered. The variety of materials available to hospitals for safety education is discussed together with the need for more materials designed for the hospital setting rather than industry or commerce. The establishment of a safety committee may relate to hospital size and whether or not it is an accredited facility. Accident prevention schemes are now legally mandatory and all hospital boards have to encourage safe practices and a safe environment and provide for an accident prevention committee.

FIRES AND FIRE PREVENTION

855. MAACK, J. Brandrisikoen på hospitaler og plejehjem, 2. Alt personale bør have regelmässig brandinstruktion. **[Fire risks in hospitals and nursing homes 2. All staff should have regular fire training.]** *Sygeplejersken*, København, 1977, March 2, no. 9, pp. 14-17.

The consequences of a fire depend to a large extent on the first reactions of the person discovering it. All staff should be thoroughly trained in how to avoid fires and how to deal with them. The alarm and evacuation procedures should be well known and frequently rehearsed, and the necessary instructions must be prominently displayed by each telephone. Staff must be warned of the fire risks inherent in: smoking

(particularly by older, bed-ridden patients); electrical plugs, equipment and wiring; inflammable liquids and gases; cleaning materials; and decorations and candles. The fire brigade must be called at once, and internal alarms activated. Evacuation routes must be kept clear at all times, and staff must be trained in the evacuation of beds, movement in smoke-filled areas and fire-fighting. There is a wide variety of small extinguishers on the market; these should be readily available in all rooms—the quicker a fire is put out, the better. The local fire officer is always happy to visit institutions and give advice.

PLANNING FOR MASS EMERGENCIES

856. FISHER, C. J. **Mobile triage team in a community disaster plan.** *Journal of the American College of Emergency Physicians*, Lansing, 1977, Jan., vol. 6, no. 1, pp. 10-12.

Experience has shown that the present approach to disaster planning is inadequate due to lack of communication and the absence of an on-scene commander. A plan to maximize resources, expedite patient transportation to definite care facilities and minimize hospital overload was developed in Sacramento, Calif. as part of the county disaster plan. A mobile on-scene triage team (MOTT), based at the University hospital, triages casualties, coordinates communication via the Hospital Emergency Administrative Radio (HEAR) network, and directs casualty evacuation to specific hospital facilities. A standard operating procedure for MOTT has been developed and distributed to appropriate members of the disaster team; this is included in the article.

THE PATIENT

See Abstract No. 818

ADMISSION AND RECEPTION

857. AMERICAN HOSPITAL ASSOCIATION. **The hospital admitting department.** Chicago, American Hospital Association, 1977, viii, 90pp. $7.50

This is an extensive revision of a manual first published in 1952. Its aim is to assist administrators in establishing an admission department and in reviewing admission procedures for both in-patients and ambulatory patients. It covers: policies; organization and staff; functions and procedures; legal considerations; physical characteristics; equipment and systems; and ambulatory care registration. Appendices include relevant American Hospital Association statements and job descriptions. Plans and sample forms are included.

WELFARE OF THE PATIENT

See also Abstract Nos. 806, 897, 899

858. Een onderzoek naar patiëntenfolders. **[A study of information folders for patients.]** *Ziekenhuis*, Utrecht, 1977, Feb. 2, vol. 7, no. 3, pp. 73-77.

A working party of Stichting Gezondheidsvoorlichting (Health Information Foundation) analysed information folders from 71 general hospitals. It was found that

folders were generally not issued until admission, thus leaving little time for preparation. Information on geographical location and costs additional to hospital fees was often inadequate. Reception on admission varied considerably between hospitals. Other factors criticized were instructions on waiting times before admission, accessibility to medical staff, position of ward sister, contacts with social and religious workers, layout and routine of hospital, patronizing tone of folders, and avoidance of words such as 'pain' and 'death', presenting an unrealistic picture. A general trend towards more appreciation of psycho-social aspects was recognized. Guidelines on which to base a model folder are suggested, such as an introduction explaining the aim of the hospital, information on patients' rights and how to obtain them, assurance of available social and psychological help and the pointing out of patients' responsibilities. The setting up of an outside body to take up patients' complaints is recommended.

859. WATERS, A. and MACINTYRE, I. M. C. **Attitudes and criticisms of surgical in-patients.** *Practitioner*, London, 1977, Feb., vol. 218, no. 1304, pp. 269-272.

A study was carried out of patients, including day cases, admitted to the general surgical wards, Leith Hospital, Edinburgh, to obtain information on those aspects of hospital life which caused particular concern to the patients and to indicate areas in which improvement might be made. The source of admission, and type of surgical operation were analysed. Reactions from patients covered: information, medical students, noise, food, type of ward, and visiting hours. The overall satisfaction of the patients in this survey was high, although there was room for improvement in several matters; as a result of the views expressed, changes have already been made. It is in the interest of improved patient care if other hospitals carry out similar surveys.

VOLUNTARY SERVICE, VOLUNTARY WORKERS

See Abstract No. 862

HOSPITAL SOCIAL WORK

860. DOREMUS, B. **The four Rs: social diagnosis in health care.** *Health & Social Work*, Albany, N.Y., 1976, Nov., vol. 1, no. 4, pp. 120-139.

A conceptual model based on a framework of well known social work concepts has been designed to increase the effectiveness of social work practice in hospitals. The model involves an assessment of the four Rs; the patient's social roles, emotional reactions, interpersonal relationships and practical resources. The model can be applied to hospital clinical practice and as a teaching model. Routine assessment of the four Rs can serve as criterion for a social work audit in a quality assurance test. The four Rs conceptualize social problems, and can be used as a checklist to ensure rapid and systematic intervention in patient care.

TRANSPORT OF PATIENTS

861. HOUTCHENS, B. **Utah's flying intensive care units.** *Contemporary Surgery*, New York, 1977, Jan., vol. 10, no. 1, pp. 26-29.

Salt Lake City, Utah, has for many years been the referral centre for much of the

Intermountain West. Problems of providing health care in rural areas are discussed. Current transportation systems are being upgraded and consequently more patients should survive to reach community hospitals. The problems of long-distance transfer of critically ill patients overland has resulted in the development of an air transport system. The helicopter is ideally suited to retrieval of ill and injured patients from remote mountain and lake areas, mining and oil sites. The most effective long-range patient transport and retrieval systems in a military setting are fixed-wing aircraft. The effectiveness of air recovery systems becomes evident when examined in terms of: patient's survival; recovery time; care en route; cost; liability; and co-operation of local primary care physicians. The development of the air transport system has proved to be an effective alternative system.

HOSPITAL CARE

See also Abstract Nos. 805, 824, 837, 885, 894, 895, 904, 907, 914

862. O'BRIEN, C. R. and JOHNSON, J. L. **Paraprofessional support for the hospitalized patient.** *Dimensions in Health Service*, Toronto, 1977, Jan., vol. 54, no. 1, pp. 37, 39.

The psycho-emotional disturbances of a stay in hospital require serious attention on the part of hospital staff. Additional support from social workers and chaplains can be integrated into the health care system, together with volunteer workers who may have the potential of becoming paraprofessional counsellors offering additional services to the patient. A four-hour workshop designed to heighten awareness regarding non-medical concerns of patients is outlined. The workshop is designed to encourage maximum participation by hospital staff by stimulating their awareness of the psychological needs of patients. It helps establish a climate for the development of psychological support services which depend upon the co-operation of health practitioners.

863. BROOK, R. H., WILLIAMS, K. N. and AVERY, A. D. **Quality assurance today and tomorrow: forecast for the future.** *Annals of Internal Medicine*, Philadelphia, 1976, Dec., vol. 85, no. 6, pp. 809-817.

The definition, history and current findings of quality assessment are reviewed. Difficulties with quality assessment focus on methods problems including using a medical record as a source of information, using process versus outcome criteria, and ignoring decision analysis methods when establishing quality criteria. Issues of importance are: estimations of the value of health, quality assurance and assessment efforts, and the degree to which improvements in the quality of care can be achieved through changes in services provided by doctors. A hypothetical quality assurance scheme for the 1980s is outlined, based on preservation of the health service system, adoption of a national health service plan and minimal government involvement in quality assurance systems at the regional level.

864. JACOBS, C. M., CHRISTOFFEL, T. H. and DIXON, N. **Measuring the quality of patient care: the rationale for outcome audit.** Cambridge, Mass., Ballinger, 1976, xviii, 186pp. £7.20

This book discusses the need for systematic patient care evaluation, describes the

historical evolution of audit systems and analyses in depth the U.S. Joint Commission on Accredition of Hospitals (JCAH) performance evaluation procedure (PEP). Separate chapters cover the theory of the JCAH's outcome audit, the application of the PEP with examples, the identification of problems and their solution, and finally the implementation of audit procedures and their results. An appendix gives details of the section of the JCAH Accreditation Manual for Hospitals covering the quality of professional services and the essential characteristics of an acceptable patient care evaluation. Further appendices give details of actual audits and discuss the problems of legal liability raised by hospital review activities. There is a select bibliography of approximately 170 items.

865. BROOK, R. H. and WILLIAMS, K. N. **Evaluation of the New Mexico Peer Review System 1971 to 1973.** *Medical Care*, Philadelphia, 1976, Dec., vol. 14, no. 12, supplement, pp. 1-122.

The first two years of operation of a peer review system designed to improve the quality of care given to Medicaid patients and to control the cost of such care are evaluated. The system became operational in New Mexico in 1971. The importance of quality assurance and cost containment are discussed within the context of the New Mexico system. The types of services used by the Medicaid population and the effects of the peer review system upon the use of these services are evaluated. The effect of the system upon injections given during out-patient visits and the relationship between use of injections, the doctor and type of patient are analysed. The implications of the system for the organization of medical care; calibre of doctors; quality of care; and medical insurance are discussed.

866. SCHANTZ, E. and CHRISTENSEN, D. Midler til forbedret sygeplejekvalitet: vi må vedvarende vurdere midler til bedre sygepleje. **[Means of improving the quality of nursing: we need to evaluate constantly the means of improving nursing.]** *Sygeplejersken*, København, 1977, Feb. 23, no. 8, pp. 4-7.

The process of nursing comprises a series of problem-solving activities centering on the patient. These activities are: recognition of the patient's needs and problems; collection, analysis and interpretation of data; planning and carrying-out of course of treatment; and assessment. The nurse who has trained herself to think in a directed, problem-solving way has a better chance of providing high-quality nursing. A ward's ability to carry out problem-directed nursing depends on its aims corresponding with those of the hospital as a whole. If there is more than one category of patients on a ward, a target must be formulated for each patient, in addition to the ward's target; and the targets must be constantly revised to keep up with technological and nursing developments. The quality of a ward's nursing must be assessed by the yardstick of the *results of nursing* (the state of the patient) rather than by that of nursing routines (adherence to traditional method). Administrative measures affecting the quality of nursing include: (i) a well-planned daily timetable; (ii) a nursing rota based on the patient's needs; and (iii) an efficient report system. The nurse must be prepared to take part in frequent routine conferences, seminars and post-graduate training in order to maintain and improve her professional knowledge.

867. HEGYVARY, S.T. and HAUSSMANN, R. K. D. **Monitoring nursing care quality.** *Journal of Nursing Administration*, Wakefield, Mass, 1976, Nov., vol. 6, no. 9, pp. 3-9, 12-16, 18-27.

Four papers on quality assurance in nursing care are presented. Aspects covered include: methods of monitoring the quality of nursing care; a framework for developing a system of nursing professional review; the relationship of nursing process and patient outcomes; and the complexity and interrelation of components of the patient care system which determine the quality of nursing care.

HOME CARE, AFTER-CARE

See also Abstract No. 906

868. CANG, S. **Why not a hospital-at-home here?** *Age Concern Today*, Mitcham, 1976, Winter, no. 20, pp. 9-11.

Hospital-at-home (HAH) schemes already operate successfully in several countries and create the possibility of converting a bed at home into a hospital bed with adequate back-up support. The HAH system used in France is considered and the possibility of introducing such a scheme into the National Health Service is discussed. Comparisons are drawn with existing schemes and the implications for the elderly are outlined together with the psychological consequences of being at home. The practical prospects of establishing such a system are considered. Given the advantages of the system and sufficient interest from people at large there is no reason why it should not be developed in the health districts.

SPECIAL DEPARTMENTS

OPERATING SUITES

See also Abstract No. 852

869. MATHER, B. S. **Use of an automated register in the administration of an operating theatre suite.** *Anaesthesia and Intensive Care*, Potts Point, N.S.W., 1976, Aug., vol. 4, no. 3, pp. 211-216.

Slight modification of established recording practices is frequently all that is necessary to enable a computer to be used as a powerful and flexible administrative tool. The principles that should be incorporated into a system if co-operation of its users is to be achieved are discussed and the method of processing the reports in the operating suites of the Royal Children's Hospital, Melbourne, presented. The system was implemented with as little change in routines as possible. Greater attention to detail is required for the computer and the results of the scheme indicate that it is unlikely that there has been any saving of work in the recording of information although there is a guarantee that records of all cases passing through the threatres are entered onto the computer. However, there is a restriction on the use of the tabulating program for research purposes since it is not possible to use it to search for patients undergoing a specific operation as there are no controls imposed on the way operation names are recorded.

870. McCarville, M. **Maintaining standards in the OR.** *Dimensions in Health Service*, Toronto, 1977, March, vol. 54, no. 3, pp. 36-37.

The need to maintain standards of care in operating theatres and suites is of importance since the patient is exposed to the unusual hazard of being rendered unconscious. There is pressure upon the surgical team and the nurse must be aware of increased changes evident in all areas of operating room practice. Instances of the wrong administration of drugs, injuries and surgical wound infections are considered. Cleaning up procedures and the maintenance of equipment require in-service schemes of staff training for staff to know about the use and care of equipment.

ANAESTHESIA

871. Jennings, A. M. C. **Delivering service as and when required.** *Lancet*, London, 1977, Feb. 26, vol. i, pp. 474-475.

The need to provide an efficient emergency service is fundamental to all areas of the health service. The problems of providing a service in anaesthetic departments for two types of patient, the random emergency and those on the routine list, are discussed. The likelihood of a randomly arriving case finding the system fully occupied is high if efficient use involves a high utilisation of on-call staff. To make sure the randomly arriving case has a good chance of receiving treatment promptly it is necessary to have surplus staff on call. The problems of assessing the routine list are outlined. It is recommended that out-patient input, waiting-lists, and emergency input should be calculated in terms of theatre minutes and bed-days rather than simply by counting numbers. Such methods would permit a more detailed examination of needs and help avoid mismatching facilities or wasteful relief of the wrong bottlenecks.

872. Fryer, M. E. and Boulton, T. B. **Apparatus for emergency anaesthesia outside main hospitals.** *Anaesthesia*, Oxford, 1977, Feb., vol. 32, no. 2, pp. 189-196.

The criteria which govern the design of anaesthetic equipment for emergency use away from a sophisticated operating theatre in a base hospital is discussed. Three basic systems—plenum, closed circuit and draw over are considered. A recently developed portable anaesthetic unit based on the air draw over principle is discussed. It is for use particularly with an obstetric flying squad. The apparatus has worked well in trials and in service. The training required by staff for its use is discussed together with the care and maintenance required.

PHARMACY

873. Desroches, B. P. **In-service training for pharmacists.** *Australian Journal of Hospital Pharmacy*, Prahran, 1976, vol. 6, no. 4, pp. 149-152.

Much in-service training for pharmacy staff in hospitals is inseparable from continuing education for departmental staff. This particularly applies in hospitals where the pharmacist does not merely dispense drugs but has become a drug advisor,

becoming more closely involved with the patient, physician and nurse. The system of in-service training for pharmacists in Canada is outlined. Formalized in-service methods of training are discussed and include journal clubs to keep abreast of the current literature, residency schemes and pre-registration training. Very little is provided by the hospital itself in many instances and pharmacists have to look after their own needs. The possible expansion of training schemes outside the walls of the particular hospital is recommended to allow sharing of useful in-service training resources. Formal structured training schemes should be available and time allocated to the pharmacist for study. He should not be required to participate in the hospital's in-service training scheme.

874. THOMAS, W. H. **A medicament prescribing, administration and monitoring system.** *Australian Journal of Hospital Pharmacy*, Prahran, 1976, vol. 6, no. 4, pp. 145-148.

The need for a comprehensive drug information service in hospitals is discussed. The drug prescribing and administration system can be integrated with drug surveillance schemes to provide video, on-line drug prescribing facilities, drug administration systems and a drug monitoring system. A computerized service is ideal in terms of efficiency and accuracy. The drug prescribing features of the system are outlined. The system contributes to more effective therapy by improving drug administration, and reduces the length of stay in hospital by eliminating unnecessary adverse drug reactions. The system must be simple and easy to work for it to succeed.

875. BLACKBURN, J. L., LAXDAL, O. E. and DEMPSEY, M. J. **Saskatchewan dial-access drug information service.** *Canadian Medical Association Journal*, Ottawa, 1976, Nov. 6, vol. 115, no. 9, pp. 869-871.

In September 1974 the colleges of pharmacy and medicine of the University of Saskatchewan established the first comprehensive province-wide drug information service in Canada, available to all doctors and pharmacists for 12 hours a day, seven days a week, with no direct charge to the user. The implementation of the scheme is outlined. With the help of a radio-page system calls are taken immediately by experienced pharmacists and pharmacologists. The cost of long-distance phone calls is borne by grants from the Saskatchewan medical and pharmaceutical associations. During the first year of operation 415 requests for information were received. Evaluation of a questionnaire revealed that 77 per cent of the information was requested to assist in the treatment of a current patient, and 11 per cent of the calls were considered urgent. The information received resulted in the alteration of drug therapy in one third of the calls requesting information. Further plans for the service include the establishment of a 24-hour service, seven days a week, from a centre within a clinical setting, and methods of serving current unmet needs with respect to poison control information.

876. MORRELL, J., PODLONE, M. and COHEN, S. N. **Receptivity of physicians in a teaching hospital to a computerized drug interaction monitoring and reporting system.** *Medical Care*, Philadelphia, 1977, Jan., vol. 15, no. 1, pp. 68-78.

Doctors at Stanford Medical Centre, Calif., were studied to evaluate their reaction to an experimental computerized system that warns them when potentially interacting

drugs have been prescribed for a patient. The background and organization of the MEDIPHER system (Monitoring and Evaluation of Drug Interactions by a Pharmacy-Oriented Reporting System) is outlined. The findings revealed that although only a quarter of the 862 doctors studied had personally received a warning report the educational benefits of the system were felt by many in the hospital. The system was of benefit to interns and medical students and appears to have potential as an educational tool for training in therapeutics. Although there were several problems the overall attitude to the system was favourable. The study suggests that a computer-based system may be useful for reducing the problem of drug interactions among patients.

877. COHEN, M. R., TURCO, S. J. and WELTMANN, A. J. **An assessment of the impact and value of clinical pharmacy services.** *Hospital Pharmacy*, Philadelphia, 1977, Jan., vol. 12, no. 1, pp. 9-10, 12-14, 19-20.

The background to the health care schemes in the United States is discussed. Increased patient numbers and demands have created greater challenges for hospital pharmacists. The innovations developed to meet patient needs include: a unit dose system; pharmacy IV additive schemes; physicians' order and patient profile; drug history; and drug discharge consultation. The value of these services to health care and the work that has been done to justify them both economically and clinically is analysed. Various methods of repayment for the pharmaceutical services are discussed.

878. TOUQUAN, S. **Clinical pharmacy and Blue Cross plans: reimbursement and support of innovative pharmacy programs.** *Hospital Pharmacy*, Philadelphia, 1977, Jan., vol. 12, no. 1, pp. 22-24.

Knowledge of reimbursement methods used by the Blue Cross Association is of increasing importance to pharmacists. The Blue Cross Association is the national organization for the 69 non-profit Blue Cross plans in the United States, and serves to unify the schemes into a comprehensive system of health care delivery. The statistics and background to the Blue Cross System are discussed. The extensive experience derived from the design and operation of health care coverage schemes is outlined. Methods used for reimbursing hospital patients are based on charges or costs, and the effect of these methods on pharmacy schemes is discussed. Areas of health care covered by the Blue Cross Association are analysed in the light of clinical pharmacy developments.

879. MARVELL, P. R. **Developments in closing infusion fluid containers.** *Pharmaceutical Journal*, London, 1976, Dec. 25, vol. 217, no. 5901, pp. 593-594.

A new closure system for sterile infusions and a unit for drying closures before overcapping have been developed by the Viscose Group Limited. The two part secondary sealing system was designed specifically for the 540 ml MRC bottle and comprises an injection moulded polyethylene overcap which gives a secure fit over the aluminium screw cap with its central aperture and the relieved rubber bung with needle recess. The over-cap is held in place by a cellulose viskring. The advantages of the system are a greater degree of security and an improved appearance. A new drying unit has also been developed to ensure that the top and recess of the bottle closure are effectively dried since the application of the new closure is post-autoclaving. The

unit operates from a standard air compressor system operating at 80 pounds per square inch which releases air through a perforated nozzle on the top of the bottles as they pass along a conveyor. Bottles were checked and it was found that although the visible part of the closure and recess were dry, cooling water was present for between 48 and 72 hours under the section of the rubber bung and threads of the bottle neck totally covered by the aluminium closure. Thereafter the complete closure and screw threads of the bottle neck were dry.

LABORATORIES

See also Abstract No. 794

880. REES, L. and LANDON, J. **The supraregional hormone assay service.** *British Journal of Hospital Medicine*, London, 1977, Jan., vol. 17, no. 1, pp. 58-60, 62, 65-66.

The Supraregional Assay Service (SAS) was established in 1972 to enable existing hospital laboratories to undertake assays on a supraregional basis rather than to establish completely new facilities. The SAS comprises at present one laboratory undertaking tissue enzyme studies, six that carry out blood lead determinations, five that carry out specialized protein analyses and 14 that carry out a wide range of hormone assays on a supraregional basis. The functions of the SAS hormone centres include: provision of a specialized analytical source; educative and interpretative role; supply of assay reagents; operation of quality control schemes; devolution of hormone assay services; and research and development. The advantages and disadvantages in establishing an SAS are discussed. Although the system is far from perfect it is believed that the advantages will eventually outweigh the cost and effort required. Long-term success or failure will depend upon maintaining a flexible approach to meet the changing requirements of physicians and their patients.

BLOOD TRANSFUSION DEPARTMENT

881. PASS, M. A. and others. **Evaluation of a walking-donor blood/transfusion program in an intensive care nursery.** *Journal of Pediatrics*, St. Louis, 1976, Oct., vol. 89, no. 4, pp. 646-651.

A study was carried out to identify the immediate and long-term advantages of a walking-donor blood transfusion scheme for an intensive care nursery at Stanford University School of Medicine, Calif. The study group received a total of 385 walking-donor transfusions: 82 infants received one transfusion, and 88 received more than one. Only one donor per recipient was required for 70 per cent of infants. The methods of selecting blood types and testing blood are outlined. The effect of heparin on the coagulation of blood was determined in 26 transfusions in 15 infants and found to be minimal. There was no evidence of transmission of HBs Ag. The prevalence of CMV infection at the time of follow-up was higher in infants who had received blood from donors seropositive for CMV than in infants who had been transfused from seronegative donors. The walking-donor scheme has been a safe and effective method of providing small transfusions of blood to the newborn.

DIAGNOSTIC X-RAY DEPARTMENT

See also Abstract No. 812

882. FAIRMAN, W. L. and DICKHAUS, E. A. **Technology evaluation: a case study of MARS.** *Medical Care*, Philadelphia, 1977, Jan., vol. 15, no. 1, pp. 79-92.

A health care technology evaluation framework is presented together with its application to the Missouri Automated Radiology System (MARS) project. The framework is made up of evaluation objectives, evaluation design system documentation, analysis model, evaluation measures and data collection. The results of applying the framework indicate that MARS increases the cost of diagnostic radiology 2.3 per cent, significantly decreases report response time and successfully carries out film management.

883. THEIMER, P. A. and others. **Clerical work simplification.** *Dimensions in Health Service*, Toronto, 1977, March, vol. 54, no. 3, pp. 26-28, 30, 32.

Mount Sinai Hospital, Toronto, reorganized its patient identification systems in the radiology department as a result of a change to a larger building. Close co-operation between the administrative management of the radiology department and the computer systems department produced several new clerical systems. The function of the radiology department master index was absorbed by the hospital's central index, which now adds the examination site, date and reference daily number to its central master index cards. A direct telephone link has been set up between the film library and central index for inquiries. Improvements have been made in film bags, standardization report sets, filing and statistics. The advantages of the new systems are discussed. Errors have been reduced and the flexibility of the system has been proved. The critical aspect of the system is maintaining up-to-date input.

REHABILITATION

See Abstract No. 907

PHYSIOTHERAPY DEPARTMENT

884. RANKIN, N., MEYER, R. and BAUER, D. **Shared physiotherapy in a rural setting.** *Dimensions in Health Service*, Toronto, 1977, March, vol. 54, no. 3, pp. 43-45.

The community therapy scheme based on Kindersley Union Hospital, Saskatchewan, providing physical therapy services to the community, has been in operation for almost two years. The background to the establishment of the scheme is discussed. Hospital employed rural community therapists provide physical therapy to the communities of Kerrobert, Kindersley and Eston. The scheme is organized without elaborate departments primarily as an office-assessment-classroom providing education and treatment. Therapists devise simple equipment which can be easily adapted for home use, helping the patient, the family and the community whilst reinforcing favourable attitudes and practices. Detailed records are maintained and the problem oriented approach used for assessing the patient. Patients have a wide

range of problems and are taught to carry out their own schemes of treatment. An adult health screening scheme for the elderly has been established. The success of the community therapy scheme in the three communities is demonstrated.

DEPARTMENTS FOR SPECIAL THERAPY

See also Abstract Nos. 782, 784, 845, 847, 913

885. LINN, B. S., STEPHENSON, S. E. and SMITH, J. **Evaluation of burn care in Florida.** *New England Journal of Medicine*, Boston, 1977, Feb. 10, vol. 296, no. 6, pp. 311-315.

In order to determine whether additional burn care facilities or educational schemes for burn care were needed within Florida, 73 of the state's 220 hospitals were studied for one year. Selection was made on the basis that a hospital was likely to have provided burn care to a sizeable number of patients. Data was collected on hospital statistics as well as on 1656 patients admitted for burns to these hospitals during that year. The results revealed that there was no evidence that outcomes of patients were better in any one, or group of the state's eight regions or in the hospitals that had special burn units. There was evidence that additional educational schemes were needed in burn care. Many records were poor, admissions were inappropriate, patients with minor burns stayed too long, and burn shock was too frequent. The results indicate the need for additional studies on the subject.

INTENSIVE CARE UNITS

See Abstract Nos. 807, 861

886. ALONZO, A. A. **The impact of physician consultation on care-seeking during acute episodes of coronary heart disease.** *Medical Care*, Philadelphia, 1977, Jan., vol. 15, no. 1, pp. 34-50.

A study of the behaviour of 262 patients who had acute attacks of coronary heart disease was analysed to determine the interval from the patients' first awareness of his illness to his arrival at a definite care setting in a hospital. Aspects analysed included: the incidence and duration of consultation with the doctor; the proportion of total time from the onset of acute symptoms to hospital arrival taken up by medical evaluation; the impact of medical evaluation on the method and length of travelling time to the hospital, and the duration of medical evaluation and administrative procedures in the hospital emergency room. The results suggest that doctors, ancillary medical staff, the patient and lay people are equally responsible for 'delay' in obtaining definite medical care. If effective techniques to bring patients under definite medical care during the first critical hour are to be developed, both lay and medical behaviour should receive research attention.

887. STROSS, J. K. and others. **Effectiveness of coronary care units in small community hospitals.** *Annals of Internal Medicine*, Philadelphia, 1976, Dec., vol. 85, no. 6, pp. 709-713.

A study was carried out between 1969 and 1974 to evaluate a scheme establishing

coronary care units in small community hospitals in the United States. The aims of the scheme were to establish modern coronary care units in small community hospitals, to assure that a sufficient number of trained nurses and physicians were available to staff these units and to monitor the quality of care in the units. Crude mortality rates from the units were slightly higher than units in three larger comparison hospitals. Multivariate discriminate analysis of clinical characteristics was used to calculate a risk score for each person admitted. Observed deaths exceeded expected deaths in small hospitals but observed deaths were less than expected in comparison hospitals. Mortality was greatest in those units admitting fewer than 60 patients with infarctions yearly than in those admitting more than 60. The data suggest that small coronary care units can provide effective care, even if they fail in some ways to meet recognised standards for this kind of care, but their level of performance drops when fewer than 60 patients with infarctions are admitted yearly.

888. HUNT, D. and others. **Changing patterns and mortality of acute myocardial infarction in a coronary care unit.** *British Medical Journal*, London, 1977, March 26, vol. i, pp. 795-797.

Three groups of patients who had been treated at different times in the coronary care unit of the Royal Melbourne Hospital, Victoria, were compared to determine whether there has been any change in the clinical profile of the patients or their survival rates. Patients in group 1 were admitted over four years from March 1963, those in group 2 over 16 months from July 1969 and those in group 3 over 14 months from August 1974. In each group of patients transmural infarction was diagnosed on the same criteria. The results revealed a significant reduction in mortality among consecutive patients with mild or severe infarction between 1969-70 and 1974-5. Classifying the patients in all three groups according to their risk factors showed that for each risk factor mortality had decreased since 1963. The incidence of arrhythmias and conductive defects decreased between 1969-70 and 1974-5 and mortality among patients with each arrhythmia fell. The reduction in mortality may reflect a changing pattern in the natural history of the disease as well as a benefit of improved treatment.

889. HAMPTON, J. R., DOWLING, M. and NICHOLAS, C. **Comparison of results from a cardiac ambulance manned by medical or non-medical personnel.** *Lancet*, London, 1977, March 5, vol. i, pp. 526-529.

During a 20-month period a cardiac ambulance based at Nottingham General Hospital was manned on alternate days by specially trained ambulance staff only, or by such staff plus a doctor. The presence of a doctor did not lead to any reduction in the mortality of patients with heart attacks. Although transport to hospital by the special service was associated with a low pre-hospital mortality, this was balanced by a high pre-hospital mortality in the group of patients brought to hospital by routine ambulances at times when the special vehicle was manned, but for some reason was not used. There was evidence of unintentional selection of low-risk cases for transport by the cardiac ambulance. The number of lives saved by the special service was too small to cause any significant reduction in the overall mortality from heart attacks in Nottingham.

SPECIAL HOSPITALS AND UNITS

OUT-PATIENT

See also Abstract Nos. 768, 909, 910, 912

890. GEBBIE, K. M. **Developing an ambulatory care program: key issues.** *Hospital Progress*, St. Louis, 1976, Dec., vol. 57, no. 12, pp. 72-75.

The key issues involved in developing innovative health care schemes in conjunction with hospitals and other health care institutions are presented. The traditional basis for out-patient care is analysed. A summary is presented of some of the forces leading to the demand for changes in out-patient care and the potential impact that some of these changes may have on the hospital is analysed.

891. ELNICKI, R. A. **Substitution of outpatient for inpatient hospital care: a cost analysis.** *Inquiry*, Chicago, Ill., 1976, Sept., vol. 13, no. 3, pp. 245-261.

The substitution of hospital out-patient care for in-patient care is likely to become a major trend in the future of the United States health care industry. The national political trend is reviewed and reports on one-visit care versus in-patient care are discussed. Data from the Blue Cross of Florida showing charges by length of stay in 1973 are used to demonstrate changes in patient costs assuming that all one-day and two-day in-patient cases were considered as out-patient hospital cases. The analysis suggests that relative changes in total patient care costs are not substantial. Savings are 2.4 per cent given the base assumptions. The largest estimate of patient savings given optimistic assumptions is less than half the one-year cost of inflation. Detailed cost data from Connecticut hospitals reveal that many other categories of expenses would be reduced in association with lower patient days. The implications of the findings, ignoring travelling costs and lost earnings, are: (i) if special service volumes for out-patient care are the same as those for in-patient care, long-run total savings will be only 2.9 per cent; (ii) if special services are reduced by one half by substitution the total hospital savings would be less than 5.3 per cent; and (iii) if all special service charges were eliminated due to the substitution the total savings would be only 7.7 per cent. The results indicate that major efforts to restructure hospital resources and care patterns should not be carried out in anticipation of relatively large reductions in costs. There is a need for more detailed study of expenses, volumes and dollar and volume flows.

CASUALTY AND ACCIDENT

See also Abstract Nos. 856, 872

892. GABRIEL, R. W. **Medical equipment for an accident team.** *Anaesthesia*, Oxford, 1977, Feb., vol. 32, no. 2, pp. 179-188.

Equipment assembled for use by an accident team is described. The aim is to provide independent lightweight units that a medical practitioner can easily carry, yet which will contain the essential items which he may need. A complete list of the equipment

used by the Luton and Dunstable Hospital accident team is included. Compromise is inevitable which makes planning difficult particularly if action is seldom needed. Some schemes may need alternative equipment, and individual preferences must also be taken into account.

893. FISHER, C. J. **A unique academic approach to critical care-emergency medicine training.** *Journal of the American College of Emergency Physicians*, Lansing, 1976, Dec., vol. 5, no. 12, pp. 975-976.

A four-year training scheme for doctors in intensive care and casualty work at Sacramento Medical Center, University of California, Davis School of Medicine, is described. The aim of the scheme is to train the doctor in resuscitation, emergency and intensive care so that he can work in community hospital casualty departments and intensive care units, or follow an academic career in emergency care. The training scheme is fully integrated and designed to expose the resident to increasing responsibility for patient care. Doctors trained under this scheme would have a multidisciplinary approach and be both a specialist, a generalist and an innovative leader in all aspects of critical care.

894. MANNON, J. M. **Defining and treating 'problem patients' in a hospital emergency room.** *Medical Care*, Philadelphia, 1976, Dec., vol. 14, no. 12, pp. 1004-1013.

Casualty ward doctors and nurses define patients whose illnesses require prolonged and comprehensive care as 'problem patients'. A study was carried out among doctors and nurses in a 600-bed hospital in the Midwestern United States to analyse the source of staff evaluations of patients, focusing on the central concerns and problems of casualty department work. Since the alcoholic, emotionally disturbed and psychiatric patients often present behaviour problems the ward medical staff frequently define these patients as management problems rather than medical cases to be diagnosed and treated. Success or failure with management problems is no longer based on medical criteria but upon the outcome of management activities. The most successful outcomes are those where the amount of patients' disruptive behaviour and the amount of staff time and resources devoted to the patient are kept to the minimum. The need for the community to relieve the casualty department of the burden of 'problem' patients is discussed.

895. MCMANUS, W. F. and DARIN, J. C. **Can the well trained EMT-paramedic maintain skills and knowledge?** *Journal of the American College of Emergency Physicians*, Lansing, 1976, Dec., vol. 5, no. 12, pp. 984-986.

Reliable criteria to assess emergency medical technician (EMT) paramedical teams include: written or oral examinations to test logic, judgment and memory; individual success rates for the performance of manipulative skills; and testing of individuals and observation of field work by responsible doctors. The EMT course held at the Medical College of Wisconsin is discussed. Competence in the EMT paramedical team may also be assessed by using tracer conditions that reflect patient outcome converted to a standard base population per unit time. Using standard definitions of 'resuscitation' and 'save' and the pulseless, non-breathing patient as tracer, 75 (31 per cent) of 241 patients were resuscitated and 34 (14 per cent) were saved. The successful resuscitation

rate reflects the result of pre-hospital emergency care. The results indicate that the competence of EMT-paramedical systems can be reliably measured by a combination of techniques which includes the establishment of tracers and a manipulative skill record.

CHILDREN

See also Abstract No. 881

896. PORTER, P. J. and others. **Municipal child health services: a ten-year reorganization.** *Pediatrics*, Evanston, 1976, Nov., vol. 58, no. 5, pp. 704-712.

The Cambridge (Mass.) Hospital, provides a working model for developing paediatric primary care schemes within the hospital that meet the medical needs of a community. A system of neighbourhood health centres with paediatric nurse practitioners works under a centralized administration within the hospital's department of paediatrics. Centralization of administration has eliminated the duplication of medical services and has produced a responsive community health service. The paediatric nurse practitioner, under supervision, provides a protocol determined, age-related series of physical, psychometric and laboratory tests, and also cares for children's minor ills and injuries. Any child deviating from an established range of norms is immediately referred to the senior staff paediatrician for further evaluation. Any patient requiring more specialized care is referred on to the Massachussetts General Hospital. The Cambridge Hospital acts as co-ordinator between the community, primary hospital and tertiary care facility. The impact of the system is evaluated. It appears to be financially viable, medically sound and can be used to solve many of the problems confronting teaching hospitals in urban areas.

897. HARDGROVE, C. **Play for children in hospital.** *International Journal of Early Childhood*, Dublin, 1976, vol. 8, no. 2, pp. 70-85.

Six papers delivered at the XIV World Congress of Paediatrics, Buenos Aires, on various features of sick children in hospital, are presented in an edited form. The aspects covered are: (i) the need for successful preparation of the child to the situation by rehearsal, reassurance and recapitulation; (ii) the importance of play therapy for the child in hospital; (iii) the Lekotek, a centre for handicapped children which advises parents on how to stimulate their sick children in order to promote their physical and mental development; (iv) the need for creative therapy through play and art; (v) the report of the Expert Group on Play for Children in hospital; and (vi) play therapy in Scandinavian countries.

898. STEWART, D. J. and others. **A regional paediatric hospital dental service.** *Journal of Dentistry*, Bristol, 1977, March, vol. 5, no. 1, pp. 67-72.

A paediatric hospital dental service organized by the Royal Belfast Hospital for Sick Children has been developed to care for children 'at risk' who suffer from a wide spectrum of medical disabilities, e.g. bleeding diatheses and cardiac disorders. The dental service includes the Belfast City Hospital, the Ulster Hospital and the Craigavon Area Hospital. Four full-time consultants staff the service which is associated with the cardiology department and the haematological department. Treatment for patients with

clefts of the lip or palate is also provided. A 24-hour emergency service is provided for the treatment of dental emergencies. Beds are available for patients who require treatment for conditions that are primarily of dental origin. A high percentage of patients referred from medical sources have disabilities that are of a congenital or hereditary nature and are consequently often referred from the various paediatric specialties, such as neonates, or early infancy. The advantages to be gained from conducting such a service based on general hospitals for children and in close collaboration with other paediatric specialties are emphasized.

899. WIENHUES, J. Zur unterrichtlichen Betreuung von Kindern im Krankenhaus. **[Educational care for children in hospital.]** *Krankenhaus*, Stuttgart, 1977, Feb., vol. 69, no. 2, pp. 70-71.

In North Rhine/Westphalia education for children in hospital is provided in two ways: hospital schools and special instruction. There are 24 hospital schools, eight of them in paediatric departments. Teachers put in 27 hours a week and the teacher/pupil ratio is set at 1:6. Of the 297 teaching posts 194 are filled (52 special school teachers, 41 primary school teachers and 101 others). Most of the special school teachers are specially trained for work with the physically handicapped or with hospital patients. Special instruction is usually given individually though sometimes children are taught in groups. There should be not more than two hours instruction a day and (according to age) from five to 10 hours a week.

GERIATRICS AND LONG-STAY

See also Abstract Nos. 793, 915, 916

900. PACKWOOD, T. **Rehabilitating these departments back to the front line.** *Health and Social Service Journal*, London, 1977, March 25, vol. 87, no. 4534, pp. 526-527.

The problems of health services and the wider questions of provision for the elderly in society are discussed. Geriatric medicine developed separately from the main stream of acute medicine and this isolation persists today. Geriatric work has proved one of the less popular fields for native born junior doctors and as a consequence departments rely heavily on immigrants. Geriatric departments are torn between demands of the community and hospital services. Examples of the differences are presented by two models of departments: (i) an independent specialty in the hospital; and (ii) a supportive specialty in the hospital. The strengths and weaknessess of each model are discussed. Successful outcomes depend upon continuous support and co-ordination from community services which, at present, are split between different authorities and disciplines. The need for working relationships with staff providing community based services should be developed through health care planning teams and liaison committees. Negotiation is vital for the success of the welfare services.

901. WELSH COUNCIL. **Services for the elderly in Wales.** Cardiff, Welsh Council, 1976, vi, 68pp.

This is a report by the Health and Social Services Panel of the Welsh Council. The main sections of this study cover housing, care in the community and institutional care.

This last chapter includes a section on hospital geriatric services in Wales. Annexes include figures showing the distribution of geriatric beds, the number of geriatric day hospitals and a Welsh Hospital Board survey of ailments experienced by residents in local authority homes.

902. CLARKE, M. L. **Organizing nursing services.** *Age and Ageing*, London, 1977, supplement, pp. 108-110.

The need for organized nurse services is discussed. It is a task that should be planned and initiated by nurse managers whatever the specialty. The primary task of the nurse manager is to ensure that nurses are doing the kind of work that their patients need to get better. The approach to organizing nursing services is presented. The organization of effective nursing services in geriatric and psychogeriatric wards is complex and consequently nursing role objectives have to be set. All nurses need a specific course of practical training to widen their repertoires of skills so that each patient can receive the care he needs. Nurse managers need to be involved in geriatric senior staff policy, and gain the co-operation of the other health teams. Understanding on the part of the medical staff of the effects of radical change in the nursing role could improve the process of change that should have an impact on the work of the services for the elderly.

903. BLEIWEISS, L. and SIMSON, S. **Building a comprehensive geriatric health care system: a case study.** *Journal of Community Health*, New York, 1976, vol. 2, no. 2, pp. 141-152.

A study of the efforts of three urban medical care institutions—a Health Maintenance Organization, a nursing home, and a university hospital, to form an inter-organizational relationship is presented. The aim of the relationship was to use the services of the three organizations in order to respond to the health needs of an urban geriatric population. Changes in the relationship are described and analysed in terms of four conceptual stages: exploration, negotiation, interaction and performance, and termination. Problems that arose as a result of this relationship were not solved and consequently the relationship was ended. The causes of the failure are discussed. Stresses emerged for each organization in the areas of organizational integration, professional co-ordination and environmental adaption making it difficult for the three organizations to become integrated, and consequently any benefits that might have developed were not enough to sustain an innovative comprehensive geriatric health project.

904. LEEMING, J. T. and LUKE, A. **Multidisciplinary meetings with relatives of elderly hospital patients in continuing-care wards.** *Age and Ageing*, London, 1977, Feb., vol. 6, no. 1, pp. 1-5.

A series of five multidisciplinary meetings with the relatives of elderly patients in continuing care wards of the University Hospital of South Manchester, were held during a period of just under a year. The 33 patients concerned were very old and extremely frail both physically and mentally, with an average age of 84 years. The main emphasis of the meetings was on the education of relatives with a special bias towards rehabilitation. The meetings proved to be a useful occasion when staff and relatives could discuss problems and possibilities without causing stress or embarrassment to the patient. The amount of useful information concerning the needs of demented patients

brought about an immediate improvement in the quality of care. The value of the meetings is appreciated by staff who have attempted to influence quality of care by direct discussion, an exercise which can be unproductive and emotionally disturbing.

905. LYE, M. and KAMAL, A. **Effects of a heatwave on mortality-rates in elderly inpatients.** *Lancet*, London, 1977, March 5, vol. i, pp. 529-531.

In 1976 the United Kingdom had its hottest summer for over 300 years. The department of geriatric medicine, University Hospital of South Manchester, has 64 acute assessment beds in three wards in buildings well insulated from solar radiation and 235 rehabilitation or continuing care beds in single-storey flat-roofed accommodation providing little insulation. The relation between the number of in-patient deaths occurring in the department and external air temperatures recorded during the heatwave was investigated. There was a close correlation between the mortality rate and the weekly average of peak daily temperatures. There was less of an increase in mortality among the elderly patients in the better insulated buildings. The total number of deaths among elderly patients increased threefold during the hottest period of the heatwave. These results suggest that special measures may need to be taken in the elderly to combat the harmful effects of heatwaves.

906. HOUGHTON, L. and MARTIN, A. E. **Home vs. hospital: a hospital-based home care program.** *Health & Social Work*, Albany, N.Y., 1976, Nov., vol. 1, no. 4, pp. 88-103.

Hospital staff are being overburdened by the routine care they must provide for elderly patients, many of whom could be cared for at home by their own families. A hospital-based scheme was developed at the Veterans Administration Hospital, Hines, Ill., to provide centrally co-ordinated home care services delivered by a team of health professionals to veterans suffering from a wide variety of illnesses. The selection criteria are outlined. The roles of the social work co-ordinator and home health technicians and other members of the team are discussed. The home-care scheme provides effective treatment on an individualized basis to patients who would otherwise be relegated to long-stay institutional care. It is less expensive and frees the staff from custodial duties. Increased participation is required from the community.

907. DAVIS, M. Z. **Rehabilitative care in the skilled nursing facility: the mismatch of organizational structure and patient needs.** *Journal of Nursing Administration*, Wakefield, Mass., 1977, Jan., vol. 7, no. 1, pp. 22-27.

Research has shown that the efforts of the nursing staff in skilled nursing facilities to provide rehabilitative care are seriously impeded by constraints in the ward setting. This study examines why this seemingly paradoxical situation exists. Data was gathered for about a year from observations on the ward: interviews with patients, families and staff; reading patients' charts and other records; and attending hospital meetings. It was found that though the patient's needs were largely in the area of rehabilitation, much of the staff's activities did not reflect these needs. Rather, patient care revolved around a physical maintenance/housekeeping orientation with rehabilitative components marginal to the care structure. This emphasis stemmed from a number of factors in the ward setting: (i) many of the organizational arrangements, especially those dealing with information exchange; (ii) the patient's induction into the care

structure was erratic and disorganized, obscuring the rehabilitative component; and (iii) the geographic separation of rehabilitative facilities, such as occupational therapy and physiotherapy. There was also a lack of staff-patient interaction and of well-defined concepts about rehabilitative nursing care. The implications of the study are discussed and recommendations made on organization and staff education.

CANCER

See Abstract No. 781

NEUROLOGY AND NEUROSURGERY

See also Abstract No. 812

908. ISAACS, B. **Five years' experience of a stroke unit.** *Health Bulletin*, Edinburgh, 1977, March, vol. 35, no. 2, pp. 94-98.

The stroke unit at Lightburn Hospital, Glasgow, was established towards the end of 1968. The hospital consists of four identical wards each housing 30 patients linked to a small administrative block. Of the four wards two were designated male and female geriatric admission wards, one was a geriatric continuing care ward and one was the stroke ward, containing patients of both sexes. The staffing and operational policy of the ward is outlined. A five year study revealed that of 715 patients admitted 587 were confirmed as having had a 'recent stroke'. One-third of the patients were under 65 years of age; over one-third were aged 65 to 74 and less than a third were aged 75 years and over. The organization of treatment in the stroke ward is discussed. The unit has been of great use to the department of Geriatric Medicine as it forms a focus of major clinical interest and demonstrates the value of multi-disciplinary collaboration. The stroke unit suggests that collaboration between departments of general medicine and geriatric medicine is an effective way of solving the problem of management of stroke patients.

CARDIOLOGY

See Abstract Nos. 886-889

ORTHOPAEDICS

909. BOARDMAN, K. P. and GRIFFITHS, J. C. **Elective out-patient surgery in orthopaedics.** *Health Trends*, London, 1977, Feb., vol. 9, no. 1, pp. 9-11.

The literature covering out-patient surgery is reviewed. The development of out-patient surgery depends either upon the creation of the necessary facilities in new hospital units, or upon finding under-used existing resources. A local increase in minor surgical problems, arising after the development of a hand clinic and teaching clinic at a local foot hospital coupled with the inadequate management of those patients in an acute in-patient unit as a result of a lack of beds and limited operating time, resulted

in the establishment of an out-patient service for adult orthopaedic patients in an unused theatre in a nearby psychiatric hospital. The service was set up for two afternoons a week. Complications are rare if patients are carefully selected, if anaesthesia is good and if post-operative surveillance is good and effective. A wide range of conditions have been treated. The economic advantages of the system are discussed. There has been a reduction in waiting time for operations and a low incidence of infection. The patients welcome the system which is now an essential element in the orthopaedic service.

UROLOGY

See Abstract No. 847

SURGERY

See also Abstract Nos. 817, 859

910. HUGHES, W. F. **An ambulatory surgical service by Norwalk Hospital department of surgery.** *Connecticut Medicine*, New Haven, 1976, Sept., vol. 40, no. 9, pp. 592-596.

As Norwalk Hospital, Conn., had been affected by a bed occupancy problem for 15 years a formal ambulatory surgery service was set up in 1972 for the benefit of patients. The service was provided to improve bed use; free operating theatres for in-patient use; lessen the cost to the patient; reduce the waiting time for elective surgical cases and improve patient care. The unit was sited on the paediatric floor and was open from 0800 to 1600. Three casualty beds were also used from 0800 to 1200. There has been a good acceptance by the hospital, surgeons, nurses and patients of the system, and plans for the future include an addition to the hospital which will improve ambulatory care in general and provide many new ancillary services including an ambulatory surgery service with four beds for patients with local anaesthesia, eight holding beds, two operating theatres and a four-bed recovery room.

MATERNITY

See also Abstract Nos. 889, 919

911. LEDWARD, R. S. and others. **The establishment of a programme of artificial insemination by donor semen within the National Health Service.** *British Journal of Obstetrics and Gynaecology*, London, 1976, Dec., vol. 83, no. 12, pp. 917-920.

A human semen tank has been established in Nottingham City Hospital for artificial insemination using donor semen (AID). Frozen semen has been used for all inseminations. The introduction and organization of such a scheme within the National Health Service is outlined together with the methods of organizing the bank, freezing the semen and technique and timing of inseminations. To date six pregnancies have been confirmed and two normal infants delivered. The legal aspects of AID are discussed.

912. McGarry, J. **Minimal delay out-patient termination of pregnancy.** *Health Trends*, London, 1977, Feb., vol. 9, no. 1, pp. 7-9.

Between February 1 1974 and May 31 1976 200 patients received out-patient termination of their pregnancies of between five and ten weeks gestation at a district general hospital in a rural area of Devon. The decision whether or not to terminate the pregnancy was made at the time of referral, thus avoiding any waiting time for those patients being offered the termination. The age of the patients ranged from 14 to 46 years and for 111 patients the pregnancy was their first. The methods used are discussed. The scheme reduces delays in waiting as much as possible without reducing the standard of social and medical care. The whole procedure is completed within an hour and the anxiety of the patient is much reduced.

DENTISTRY

See Abstract No. 898

PSYCHIATRY

See also Abstract Nos. 782, 784, 894

913. Rollin, H. R. **The care of the mentally abnormal offender and the protection of the public.** *Journal of Medical Ethics*, London, 1976, Dec., vol. 2, no. 4, pp. 157-162.

Public reaction to serious crimes committed by people who have absconded or been discharged from prison is usually extreme, and the care of the mentally abnormal offender has alternated between incarceration in prisons and treatment in psychiatric hospitals. Since the implementation of the Mental Health Act 1959, the care of the mentally abnormal offender has been firmly vested in psychiatric hospitals. The primary assumptions fundamental to the Mental Health Act 1959 are discussed. The change in care to the psychiatric hospital coincided with the concept of the open hospital; security became a thing of the past and abscondences rose dramatically. Experience has shown that the more potentially dangerous an offender is, the more likely he is to abscond. The problems of the 'special' hospitals are discussed together with the effects of the recommendations of the Aarvold and Butler committees. The Aarvold Committee was concerned with tightening the provisions of the law as it now stands and the Butler Committee recommended changes in the law relating to offenders. The Butler report is analysed. It is concluded that the report offers wise and realistic guidance, but continuing official inertia may prevent the implementation of any of the recommendations.

914. Phillips, M. **Aggression control in the psychiatric hospital.** *Dimensions in Health Service*, Toronto, 1977, March, vol. 54, no. 3, pp. 39-41.

Psychiatric hospital staff have passed from the role of custodians to supportive therapists since the introduction of modern psychotropic drugs. The success of this role depends on the prevention of confrontation between staff and patient. An analysis of patient/staff interaction carried out by the Clarke Institute of Psychiatry, Toronto, revealed that there was a marginally statistically significant variation between months,

with the peak time of incidents taking place in October, November and December; more incidents occurred on day shifts rather than evening and night shifts. The majority of incidents are associated with patients attempting to escape, avoid taking drugs, and those who have disruptive and aggressive outbursts. The types of injury and incident were analysed. Patients should be protected from provocative situations. Written guidelines for dealing with violent patients should be available and all staff should be familiar with them.

915. MILNE, J. S. and ROBINSON, R. A. **New referrals during one year to a psychiatric service for the elderly.** *Health Bulletin*, Edinburgh, 1977, March, vol. 35, no. 2, pp. 84-88.

The work of the psychiatric service provided by the Royal Victoria Hospital, Edinburgh, for the assessment and treatment of psycho-geriatric patients is discussed. The service provides for the needs of 25,000 people aged 65 years and over in a population of 170,000 people. The admissions unit consists of 24 beds out of the total 150 which are used for geriatric assessment and long-stay geriatric beds. A study of all new patients referred to the psychiatric unit during the year July 1 1973 to June 30 1974 revealed a large number of patients referred by other specialists and a large proportion who have remediable illnesses. The seasonal fluctuation in referrals probably reflects demands made on general practitioners, heavier in winter and lighter in summer. The majority of placements have worked satisfactorily, the low death rate in the admission ward suggests that patients were correctly placed within the combined service.

916. GOLDSTONE, L. A. **Long-stay female population in a psychiatric hospital. Part 2: nurses' opinions and assessments.** *Nursing Mirror*, Sutton, 1977, March 24, vol. 144, no. 12, pp. 71-72.

A study of the female in-patients of a large psychiatric hospital who had, in 1975, been continuously hospitalized during the previous two or more years revealed that the pattern of admissions is perpetuating the increase in numbers of long-stay patients. It is likely that the work load of the psychiatric nurse will grow and shift as physical nursing care needs grow and take further precedence over psychiatric nursing care. The views of nursing staff on the patients are considered. The conclusions indicate that the long-stay female in-patient population is dominated by elderly and infirm patients who are likely to increase in numbers age, infirmities and physical nursing dependence. The elderly are less violent than their younger counterparts but are more likely to wander and become lost outside the hospital grounds. About one-third of the patients could leave hospital although it was thought that only one-fifth ever would. The lack of community care facilities is discussed.

917. PRIMROSE, D. A. **The development of mental deficiency hospitals in Scotland.** *Health Bulletin*, Edinburgh, 1977, March, vol. 35, no. 2, pp. 63-65.

The modern provision of education and training for the mentally handicapped in Scotland is discussed. The earliest influence on the development of services was that of Pinel in the Bicêtre Hospital, Paris. The organization of services is now the official responsibility of the Social Work Departments and the Education Departments. The needs of the mentally handicapped have not changed and the total number requiring some form of residential care is no less now than it was in 1904, or 1855, when it was estimated at two per 1,000 population.

918. FRASER, W. and others. **The first eight years of a mental handicap service.** *Health Bulletin*, Edinburgh, 1977, March, vol. 35, no. 2, pp. 66-70.

An appraisal of the first eight years work of Lynebank Hospital, Dunfermline, is presented. The hospital provides intermediate and long-term care to mentally handicapped people. The objectives of the hospital are to render to the community a medical support service for the mentally handicapped taking into account community needs and the interests of providers of care. The hospital provides a consultancy service to local authority rehabilitation units, adult training centres, nursery classes and schools for the handicapped. The nursing organization and philosophy of the system are discussed, together with the main tasks performed by psychologists. The effectiveness of the service is considered.

SOCIAL MEDICINE

919. LYNCH, M. A. and ROBERTS, J. **Predicting child abuse: signs of bonding failure in the maternity hospital.** *British Medical Journal*, London, 1977, March 5, vol. i, pp. 624-626.

Seventy per cent of babies born to women living in the area served by Oxfordshire Area Health Authority are delivered at the John Radcliffe Maternity Hospital. Fifty of the children referred to the Park Hospital because of actual or threatened abuse had been born at this hospital between July 1972 and June 1973. These were compared with 50 controls born at the same maternity hospital. Five factors were significantly more common in the abused group than among their controls: (i) mother aged under 20 at birth of first child; (ii) evidence of emotional disturbance; (iii) referral of family to hospital social worker; (iv) baby's admission to special care baby unit; and (v) recorded concern over the mother's ability to care for the child. As these data were collected from information recorded routinely at the maternity hospital, it is possible to identify most abusing families when the child is born. Such identification must lead to a comprehensive assessment of each case followed by constructive preventive action.

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